STIC Search Report
EIC 1700

STIC Database Tracking Number: 215545

TO:	From:
Dawn Garrett Location: REM 10C79 Art Unit : 1774 February 20, 2007 Case Serial Number: 10/786811	Mei Huang Location: EIC 1700 REMSEN 4B28 Phone: 571/272-3952 Mei.huang@uspto.gov

Search Notes

Examiner Garrett,

Please feel free to contact me if you have any questions or if you would like to refine the search query,

Thank you for using STIC services!

Mei Huang

Access DB# 215545

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: DAWN GARRETT Examiner # : 76107 Date: 2/12/2007
Art Unit: 1774 Phone Number ~~30~~ 2-1523 Serial Number: 10/786,811
Mail Box and Bldg/Room Location: REM 10C79 Results Format Preferred (circle): ~~PAPER~~ DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____ (see Bib Data Sheet)

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

SCIENTIFIC REFERENCE BR
Sci & Tech Inf - Ctr
FEB 13 RECD
Pat. & T.M Office

Please search:

formula III (claim 3)

wherein Z is NR' in the formula I

portion of formula III

Thank you.

****

STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: MQH	NA Sequence (#)		STN	✓
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)	2	Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed: 2/20/07	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time:	Other		Other (specify)	

PTO-1590 (8-01)

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FILE 'REGISTRY' ENTERED AT 14:36:49 ON 20 FEB 2007
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=> d his nofile

     (FILE 'HOME' ENTERED AT 13:24:08 ON 20 FEB 2007)

     FILE 'HCAPLUS' ENTERED AT 13:24:18 ON 20 FEB 2007
L1             1 SEA US2005186445/PN

     FILE 'REGISTRY' ENTERED AT 13:25:18 ON 20 FEB 2007
L2            29 SEA (1074-24-4/BI OR 13731-82-3/BI OR 13815-90-2/BI OR
L3               STR
L4               SCR 2043
L5            50 SEA SSS SAM L3 AND L4
L6         39814 SEA SSS FUL L3 AND L4
                 SAV L6 TEMP GAR811/A
L7               STR L3
L8            50 SEA SUB=L6 SSS SAM L7
L9               STR L7
L10           20 SEA SUB=L6 SSS SAM L9
L11          441 SEA SUB=L6 SSS FUL L9
                 SAV L11 GAR811S1/A
L12            7 SEA L2 AND L6
L13            1 SEA L2 AND L11
L14            6 SEA L12 NOT L13
L15          198 SEA L11 AND ?AZOLE?/CNS

     FILE 'HCAPLUS' ENTERED AT 14:25:15 ON 20 FEB 2007
L16           72 SEA L15 ---> hits on the Formula III
L17            1 SEA L13
L18              QUE ELECTROLUM!N? OR ORGANOLUM!N? OR (ELECTRO OR ORGANO
                 OR ORG#)(2A)LUM!N? OR LIGHT(2A)(EMISSION? OR EMIT?) OR
                 EL OR E(W)L OR OLED OR L(W)E(W)D OR LED/IT
L19            8 SEA L18 AND L16
L20           15 SEA L15(L)DEV/RL
L21            8 SEA L15(L)L18
L22            1 SEA L15(L)AZOLE#
L23            8 SEA L19 OR L21 OR L22 ---> hits on Formula III + electroluminescent or azole Pg-19
L24            8 SEA L20 NOT L23 ---> hits on Formula III linked to Device P19-33
L25           56 SEA L16 NOT (L23 OR L24)
L26              QUE 73/SC,SX
L27              QUE (74 OR 76)/SC,SX
L28            3 SEA L25 AND L26
L29           12 SEA L25 AND L27
L30           15 SEA L28 OR L29 ---> hits on Formula III used in the field of optical, photochem, or Elec. Phenomena Page 33-65
L31           41 SEA L25 NOT L30
                 SAV L31 TEMP GAR811A/A
                 ---> rest of the formula III compounds, let me know if you'd like to display them.

=> d l15 que stat
L3               STR
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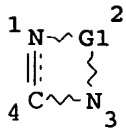
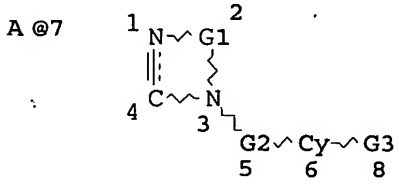


REP G1=(1-4) A
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 4

STEREO ATTRIBUTES: NONE
L4 SCR 2043
L6 39814 SEA FILE=REGISTRY SSS FUL L3 AND L4
L9 STR



Ak @9 Cy @10 X- conjugated

REP G1=(1-4) A
REP G2=(0-20) 7
VAR G3=9/10
NODE ATTRIBUTES:
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DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 6
GGCAT IS UNS AT 9
GGCAT IS UNS AT 10
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M6 C AT 6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L11 441 SEA FILE=REGISTRY SUB=L6 SSS FUL L9
L15 198 SEA FILE=REGISTRY L11 AND ?AZOLE?/CNS

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FILE 'HCAPLUS' ENTERED AT 14:36:59 ON 20 FEB 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

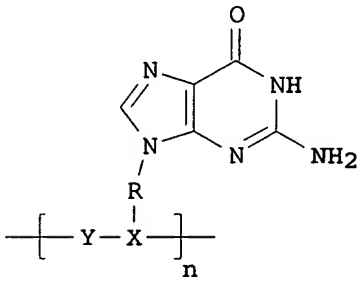
=> d l23 ibib abs fhitstr hitind 1-8

L23 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:586534 HCAPLUS
DOCUMENT NUMBER: 145:167753
TITLE: Conjugated polymer **electroluminescent** material with functional side alkylene chain terminated by guanine group, preparation and application thereof
INVENTOR(S): Huang, Wei; Fan, Quli; Qian, Yinhu
PATENT ASSIGNEE(S): Fudan University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 20 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1687066	A	20051026	CN 2005-10024610	200503 24

PRIORITY APPLN. INFO.: CN 2005-10024610 200503 24

GI



I

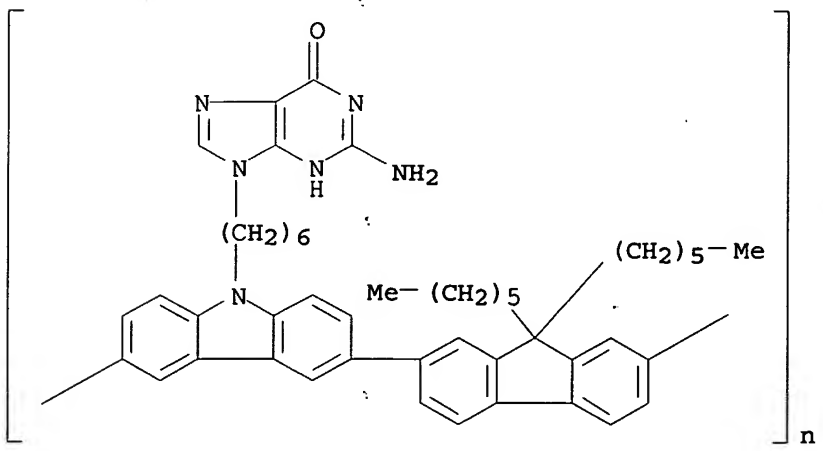
AB The title polymer material can be represented by a general formula I, wherein R = linear alkylene, Y is one of 9,9-dialkyl-9H-fluoren-2,7-diyl, 1,4-dialkyl-2,5-phenylene, 3,4-dialkylthiophen-2,5-diyl, 9-alkylcarbazole-2,7-diyl, 9-alkylcarbazole-3,6-diyl, and 5,6-dialkylbenzo[c][1,2,5]thiadiazol-4,7-diyl, while alkyls being linear or branched with any length; and X is 1-R-4-alkyl/alkoxy-2,5-phenylene, 1-RO-4-alkyl/alkoxy-2,5-phenylene, 9-R-carbazol-2,7-diyl, and 9-R-carbazol-3,6-diyl, while alkyl and alkoxy being of any length. The title preparation includes Suzuki coupling corresponding starting materials of equal moles in anhydrous toluene or THF in the presence of base and triphenylphosphine palladium catalyst; and separating product out. The polymer can be used as **light-emitting** layer material of conjugated polymer solid **light-emitting** cell.

IT **899817-94-8P**

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis of conjugated fluorene or carbazole polymers bearing guanine groups and useful for **electroluminescent** material)

RN 899817-94-8 HCAPLUS

CN Poly[[9-[6-(2-amino-1,6-dihydro-6-oxo-9H-purin-9-yl)hexyl]-9H-carbazole-3,6-diyl](9,9-dihexyl-9H-fluorene-2,7-diyl)] (9CI) (CA INDEX NAME)



IC ICM C07D473-32
ICS C08G083-00; C09K011-06

CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 52, 73

ST guanine group bearing fluorene carbazole polymer synthesis **electroluminescent** material

IT Polymers, preparation
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(conjugated; synthesis of conjugated fluorene or carbazole polymers bearing guanine groups and useful for **electroluminescent** material)

IT Luminescent substances
(**electroluminescent**; synthesis of conjugated fluorene or carbazole polymers bearing guanine groups and useful for **electroluminescent** material)

IT **Electroluminescent** devices
Suzuki coupling reaction
(synthesis of conjugated fluorene or carbazole polymers bearing guanine groups and useful for **electroluminescent** material)

IT 12628-74-9, (Triphenylphosphine)palladium
RL: CAT (Catalyst use); USES (Uses)
(synthesis of conjugated fluorene or carbazole polymers bearing guanine groups and useful for **electroluminescent** material)

IT 899817-91-5P 899817-92-6P 899817-93-7P **899817-94-8P**
899817-95-9P **899817-96-0P** 899817-97-1P
899817-98-2P 899817-99-3P **899818-00-9P**
899818-01-0P **899818-02-1P** 899818-03-2P
899818-04-3P 899818-05-4P **899818-06-5P**

899818-07-6P **899818-08-7P** 899818-09-8P 899818-10-1P
899818-11-2P 899818-12-3P 899818-13-4P **899818-14-5P**
899818-15-6P **899818-16-7P** 899818-17-8P
899818-18-9P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(synthesis of conjugated fluorene or carbazole polymers bearing guanine groups and useful for **electroluminescent** material)

IT 250597-29-6P 870766-37-3P 875432-39-6P 899817-85-7P
899817-86-8P 899817-87-9P 899817-88-0P 899817-89-1P
899817-90-4P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of conjugated fluorene or carbazole polymers bearing guanine groups and useful for **electroluminescent** material)

IT 86-74-8, Carbazole 111-25-1, 1-Bromohexane 111-83-1, 1-Bromooctane 150-76-5, 4-Methoxyphenol 504-63-2, 1,3-Propanediol 629-03-8, 1,6-Dibromohexane 6825-20-3, 3,6-Dibromocarbazole 16433-88-8, 2,7-Dibromofluorene 18908-66-2, 1-Bromo-2-ethylhexane 83470-68-2 136630-39-2, 2,7-Dibromocarbazole
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of conjugated fluorene or carbazole polymers bearing guanine groups and useful for **electroluminescent** material)

IT 7439-95-4, Magnesium, reactions 7553-56-2, Iodine, reactions
RL: RGT (Reagent); RACT (Reactant or reagent)
(synthesis of conjugated fluorene or carbazole polymers bearing guanine groups and useful for **electroluminescent** material)

L23 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:904179 HCAPLUS
DOCUMENT NUMBER: 143:256780
TITLE: **Electroluminescent** devices including conjugated polymers containing an azole structure
INVENTOR(S): Zheng, Shiying; Vaeth, Kathleen M.
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: U.S. Pat. Appl. Publ., 46 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005186445	A1	20050825	US 2004-786811	200402 25

Current app.

PRIORITY APPLN. INFO.: US 2004-786811 200402 25

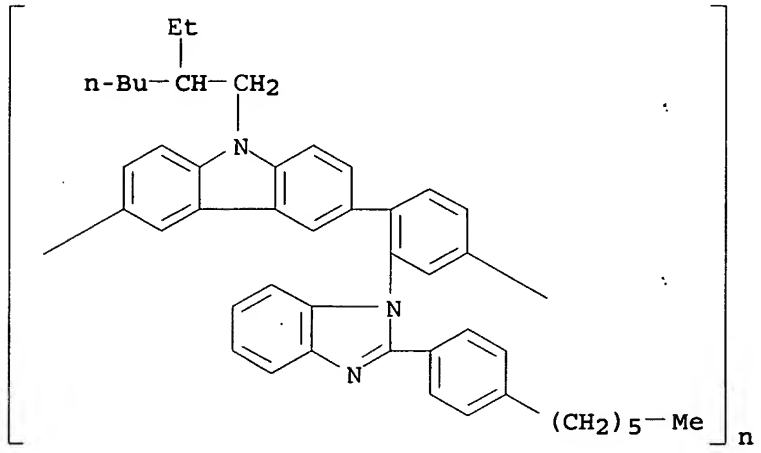
AB **Electroluminescent** devices comprising a spaced-apart anode and cathode and an organic layer disposed between the anode and the

cathode are described in which the organic layer includes a polymer having a azole structure. The polymers may be doped with ≥1 fluorescent dyes, phosphorescent dopants, or other **light emitting** material. Methods of fabricating the devices are also described which entail forming an organic layer including the polymers between the anode and the cathode.

IT **863192-63-6**
RL: DEV (Device component use); USES (Uses)
(**electroluminescent** devices using polymers with **azole** structures and their fabrication)

RN 863192-63-6 HCAPLUS

CN Poly[[9-(2-ethylhexyl)-9H-carbazole-3,6-diyl][2-[2-(4-hexylphenyl)-1H-benzimidazol-1-yl]-1,4-phenylene]] (9CI) (CA INDEX NAME)



IC ICM H05B033-12

INCL 428690000; 428917000; 313504000; 313506000; 257040000; 427066000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 38, 76

ST **electroluminescent** device azole polymer

IT Luminescent substances
Semiconductor device fabrication
(**electroluminescent** devices using polymers with azole structures and their fabrication)

IT Luminescent substances
(**electroluminescent**; **electroluminescent** devices using polymers with azole structures and their fabrication)

IT **Electroluminescent** devices
(organic; **electroluminescent** devices using polymers with azole structures and their fabrication)

IT 863192-57-8 863192-58-9 863192-59-0 863192-60-3 863192-61-4 863192-62-5 **863192-63-6**
RL: DEV (Device component use); USES (Uses)
(**electroluminescent** devices using polymers with **azole** structures and their fabrication)

IT 94928-86-6, Tris(2-phenylpyridine)iridium
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(**electroluminescent** devices using polymers with azole structures and their fabrication)

IT 88-74-4, 2-Nitroaniline 610-71-9, 2,5-Dibromobenzoic acid
1074-24-4, 2,5-Dibromo-p-xylene 1435-52-5 1493-27-2,
2-Fluoronitrobenzene 7719-09-7, Thionyl chloride 33228-45-4,
4-Hexylaniline 50606-95-6, 4-Hexylbenzoyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(**electroluminescent** devices using polymers with azole structures and their fabrication)

IT 13731-82-3P 13815-90-2P 59615-13-3P 863192-45-4P
863192-46-5P 863192-47-6P 863192-49-8P 863192-51-2P
863192-52-3P 863192-53-4P 863192-54-5P 863192-55-6P
863192-56-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**electroluminescent** devices using polymers with azole structures and their fabrication)

L23 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:51035 HCAPLUS
DOCUMENT NUMBER: 142:165272
TITLE: Block copolymers for organic **electroluminescent** (**EL**) device and its display, illumination, and light source
INVENTOR(S): Kawakami, Akira; Kita, Hiroshi; Ogino, Kenji
PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 56 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005015508	A	20050120	JP 2003-177859	20030623

PRIORITY APPLN. INFO.: JP 2003-177859 20030623

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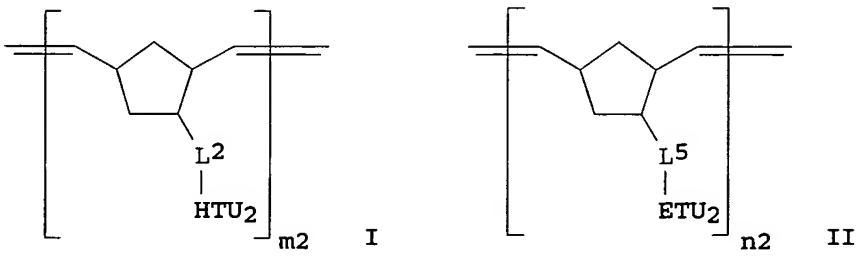


AB The block copolymers comprise (A) block components of repeating units having hole-transporting units (HTU), (B) block components of repeating units having electron-transporting units (ETU), and (C) repeating units having phosphorescent units. Preferably, the block

A is represented by the general formula [CHR1CR2(L1HTU1)]m1, I, or [O(CR3R4)l1CR5(L3HTU3)]m3 (HTU1-HTU3 = hole-transporting moiety; R1-R5 = H, substituent; L1-L3 = linking group, bond; m ≥3 integer; l1 = 1, 2, 3) and the block B is represented by the general formula [CHR6CR7(L4ETU1)]n1, II, or [O(CR8R9)l2CR10(L6ETU3)]n3 (ETU1-ETU3 = electron-transporting moiety; R6-R10 = H, substituent; L4-L6 = linking group, bond; n1-n3 ≥3 integer; l2 = 1, 2, 3). Preferably, the HTU comprise triphenylamine units and the ETU have F or F-containing substituents. Preferably, the surface free energy of the monomer forming HTU-containing repeating units is larger than that of the monomers of the ETU-containing repeating units and these monomers are incompatible to each other. Preferably, the block copolymers are prepared by atom.-transfer radical polymerization Preferably, ≥1 of the block A contains hydrolyzable silyl groups, more preferably, trialkoxysilyl groups, and also contains dialkylamino groups. The organic **EL** device contains the A-B-C block copolymers in ≥1 of the organic layers provided between a cathode and an anode. In another alternative, the organic **EL** device contains A-B block copolymers and phosphorescent compds. The organic **EL** device has high emission efficiency, long service life, and high productivity.

IT **828940-06-3P**

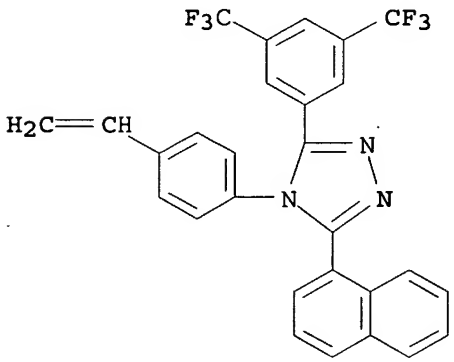
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(block copolymers for organic **EL** device for display, illumination, and light source)

RN 828940-06-3 HCAPLUS

CN 9H-Carbazole, 9-(4-ethenylphenyl)-, polymer with 3-[3,5-bis(trifluoromethyl)phenyl]-4-(4-ethenylphenyl)-5-(1-naphthalenyl)-4H-1,2,4-triazole, block (9CI) (CA INDEX NAME)

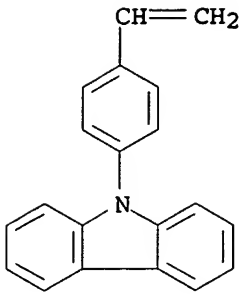
CM 1

CRN 828940-05-2
CMF C28 H17 F6 N3



CM 2

CRN 52913-19-6
CMF C20 H15 N



IC ICM C08F297-00
ICS C08G065-02; C09K011-06; H05B033-14; H05B033-22
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 38, 74
ST hole transporting unit block copolymer **electroluminescent** device; electron transporting unit block copolymer **electroluminescent** device; phosphorescent unit block copolymer **electroluminescent** device; light source org **electroluminescent** device; illumination org **electroluminescent** device; org **electroluminescent** display block copolymer
IT Light sources
(block copolymers for organic **EL** device for display, illumination, and light source)
IT **Electroluminescent** devices
(displays; block copolymers for organic **EL** device for display, illumination, and light source)
IT Luminescent screens
(**electroluminescent**; block copolymers for organic **EL** device for display, illumination, and light source)
IT Light
(fluorescent; block copolymers for organic **EL** device for display, illumination, and light source)
IT **Electroluminescent** devices
(organic; block copolymers for organic **EL** device for display, illumination, and light source)
IT **828940-06-3P 830318-16-6P 830318-18-8P**
830318-20-2P 830318-21-3P 830318-22-4P
830318-25-7P **830318-26-8P 830318-27-9P**
830318-28-0P 830318-29-1P
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(block copolymers for organic **EL** device for display, illumination, and light source)
IT 94928-86-6 344796-22-1 344796-24-3 376367-93-0
RL: DEV (Device component use); USES (Uses)
(phosphor; block copolymers for organic **EL** device for display, illumination, and light source)

L23 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:530380 HCAPLUS
DOCUMENT NUMBER: 141:96344
TITLE: Organic **electroluminescent** device for displays and illumination source and its production method
INVENTOR(S): Kita, Hiroshi; Yamada, Taketoshi; Suzurizato,

Yoshiyuki; Ueda, Noriko
PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004185967	A	20040702	JP 2002-351157	20021203

PRIORITY APPLN. INFO.: JP 2002-351157 20021203

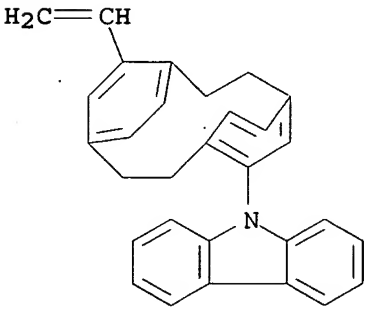
AB The invention relates to an organic **electroluminescent** device comprising a **light-emitting** layer containing a phosphorescent dopant and a multifunctioning polymer, wherein, at least, the two of functional mol. units selected from a luminescent host unit, a hole transporting unit, and an electron transporting unit constitute the multifunctioning polymer.

IT **714976-16-6**
RL: DEV (Device component use); USES (Uses)
(organic **electroluminescent** device having phosphorescent dopant and multifunctioning polymer in **light emitting** layer)

RN 714976-16-6 HCAPLUS
CN 9H-Carbazole, 9-(11-ethenyltricyclo[8.2.2.24,7]hexadeca-4,6,10,12,13,15-hexaen-5-yl)-, polymer with 3,5-bis(2,5-dimethylphenyl)-4-(4-ethenylphenyl)-4H-1,2,4-triazole (9CI) (CA INDEX NAME)

CM 1

CRN 714976-15-5
CMF C30 H25 N



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CRN 714976-14-4
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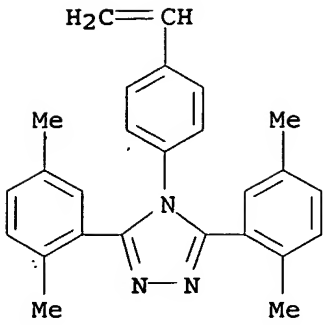


IC ICM H05B033-14
ICS C08F212-00; C08F220-34; C08F226-12; C08F293-00; C08G081-00; C08G085-00; C09K011-06; H05B033-10
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 37, 74
ST org **electroluminescent** device phosphoresce multifunction polymer
IT **Electroluminescent** devices
Light sources
Optical imaging devices
Phosphorescent substances
(organic **electroluminescent** device having phosphorescent dopant and multifunctioning polymer in **light emitting** layer)
IT Polyesters, uses
Polyethers, uses
Polyurethanes, uses
RL: DEV (Device component use); USES (Uses)
(organic **electroluminescent** device having phosphorescent dopant and multifunctioning polymer in **light emitting** layer)
IT 714976-00-8 714976-02-0 714976-05-3 714976-08-6 714976-11-1
714976-13-3 **714976-16-6 714976-18-8**
714976-21-3 714976-25-7 714976-27-9 714976-29-1
714976-31-5 **714976-33-7 714976-35-9**
714976-36-0 714976-38-2
RL: DEV (Device component use); USES (Uses)
(organic **electroluminescent** device having phosphorescent dopant and multifunctioning polymer in **light emitting** layer)
IT 94928-86-6 344796-22-1 376367-93-0
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(organic **electroluminescent** device having phosphorescent dopant and multifunctioning polymer in **light emitting** layer)

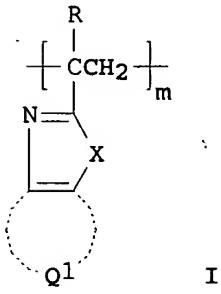
L23 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:198224 HCAPLUS
DOCUMENT NUMBER: 132:243744
TITLE: Organic **electroluminescent** component
INVENTOR(S): Okada, Hisashi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000087027	A	20000328	JP 1998-258829	199809 11
JP 3791732	B2	20060628		

PRIORITY APPLN. INFO.: JP 1998-258829 199809 11

GI



I

AB The invention refers to an organic **electroluminescent** component comprising the monomer I [Q1 = 5 or 6 membered aromatic ring, X = O, S, N-R1, C-R2(R3) where R1-3 = H, aliphatic hydrocarbon, aryl, or heterocyclic, R = H, alkyl, or aryl, m > 1].

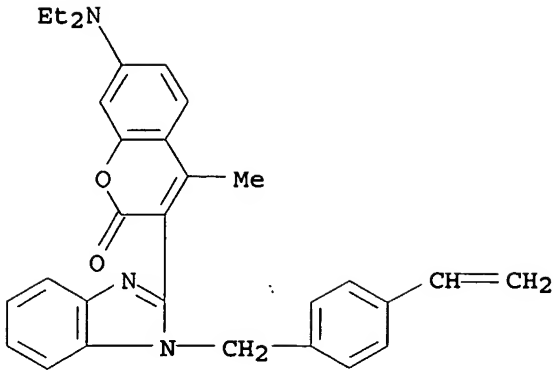
IT **261627-84-3**
RL: DEV (Device component use); USES (Uses)
(organic **electroluminescent** component)

RN 261627-84-3 HCAPLUS

CN 2H-1-Benzopyran-2-one, 7-(diethylamino)-3-[1-[(4-ethenylphenyl)methyl]-1H-benzimidazol-2-yl]-4-methyl-, polymer with 2-ethenyl-1H-benzimidazole (9CI) (CA INDEX NAME)

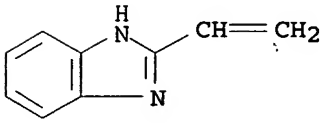
CM 1

CRN 261627-83-2
CMF C30 H29 N3 O2



CM 2

CRN 14984-26-0
CMF C9 H8 N2



IC ICM C09K011-06
ICS C09K011-06; C08F026-06; C08F212-14; H05B033-14
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 38
ST org **electroluminescent** component polymer
IT **Electroluminescent** devices
(organic **electroluminescent** component)
IT Polymers, uses
RL: DEV (Device component use); USES (Uses)
(organic **electroluminescent** component)
IT 107-06-2, 1,2-Dichloroethane, uses 852-38-0, PBD 50926-11-9, Indium tin oxide 261627-78-5 261627-80-9 261627-81-0 261627-82-1 **261627-84-3**
RL: DEV (Device component use); USES (Uses)
(organic **electroluminescent** component)

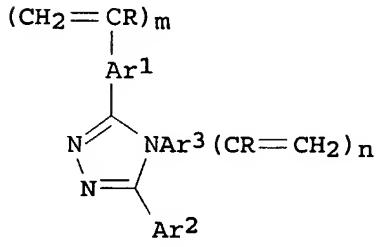
L23 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:331312 HCAPLUS
DOCUMENT NUMBER: 131:37587
TITLE: 1,2,4-Triazole-containing vinyl compounds, heat-resistant polymers therefrom, and organic **electroluminescent** elements using the polymers
INVENTOR(S): Kido, Junji; Takeuchi, Yoshiyuki
PATENT ASSIGNEE(S): Chemipro Kasei K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

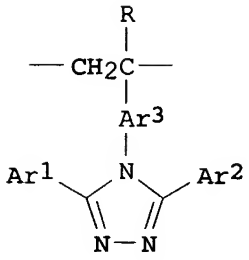
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11140060	A	19990525	JP 1997-322176	19971107

PRIORITY APPLN. INFO.: JP 1997-322176 19971107

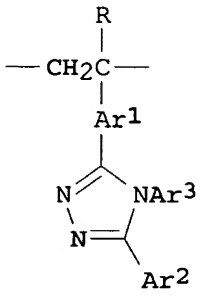
GI



I



II



III

AB 1,2,4-Triazole-containing vinyl compds. I [R = H, alkyl; Ar1-Ar3 = (substituted) aromatic group; m, n = 0, 1; m + n = 1] and their polymers (number-average mol. weight 1000-1,000,000) having repeating units II or III (R, Ar1-Ar3 = same as above) are claimed. Organic **electroluminescent** (**EL**) elements using the polymers in the carrier-transporting and/or luminescent layers are also claimed. An **EL** element using the polymer film shows high durability.

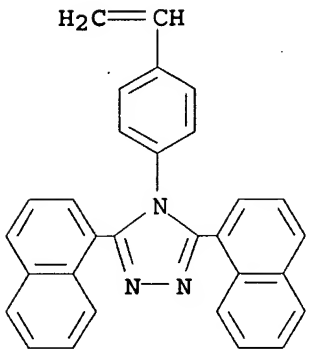
IT **226882-43-5P**
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of triazole-containing vinyl compds. and their heat-resistant polymers for organic **electroluminescent** elements)

RN 226882-43-5 HCAPLUS

CN 4H-1,2,4-Triazole, 4-(4-ethenylphenyl)-3,5-di-1-naphthalenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 226882-39-9
CMF C30 H21 N3



IC ICM C07D249-18
ICS C08F012-32; H05B033-14; H05B033-22; C09K011-06
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 28, 35, 74, 76
ST triazole vinyl polymer prepn **electroluminescent** element; phenyltriazole polymer prepn **electroluminescent** element
IT **Electroluminescent** devices
Heat-resistant materials
(preparation of triazole-containing vinyl compds. and their heat-resistant polymers for organic **electroluminescent** elements)
IT 38215-36-0 65181-78-4, TPD
RL: DEV (Device component use); USES (Uses)
(preparation of triazole-containing vinyl compds. and their heat-resistant polymers for organic **electroluminescent** elements)
IT 288-88-0DP, 1H-1,2,4-Triazole, aryl derivs., polymers 226882-42-4P **226882-43-5P 226882-44-6P** 226882-45-7P
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of triazole-containing vinyl compds. and their heat-resistant polymers for organic **electroluminescent** elements)
IT 62-53-3, Benzenamine, reactions 86-55-5, 1-Naphthoic acid 589-16-2, p-Ethylaniline 879-18-5, 1-Naphthalenecarboxylic acid chloride 6068-72-0, p-Cyanobenzoyl chloride 14002-51-8, 4-Phenylbenzoyl chloride 64328-55-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of triazole-containing vinyl compds. and their heat-resistant polymers for organic **electroluminescent** elements)
IT 2459-24-7P, Methyl 1-naphthoate 5814-09-5P 6781-70-0P 43038-45-5P 185902-62-9P 226882-38-8P 226882-39-9P 226882-40-2P 226882-41-3P 226882-46-8P 226882-47-9P 226882-48-0P 226882-49-1P 226882-51-5P 226882-53-7P 226882-56-0P 226882-58-2P 226882-60-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of triazole-containing vinyl compds. and their heat-resistant polymers for organic **electroluminescent** elements)

L23 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1999:319015 HCAPLUS
DOCUMENT NUMBER: 130:359138
TITLE: Vinyl polymers and **electroluminescence** device elements
INVENTOR(S): Kido, Junji; Igarashi, Tatsuya; Okada, Hisashi; Yamanouchi, Junichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11130817	A	19990518	JP 1997-351512	19971219

PRIORITY APPLN. INFO.: JP 1997-232742 A 19970828

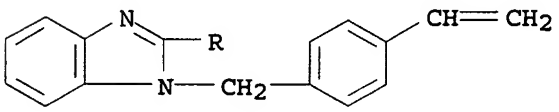
AB The elements comprise a polymer [CR1(L1Z1)CH2]m (L1 = aromatic hydrocarbon or divalent linking group containing heterocyclic group; Z1 = coumalin derivative; R1 = H, alkyl, aryl; m > 1).

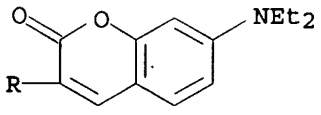
IT **221464-00-2**
RL: DEV (Device component use); USES (Uses)
(vinyl polymers and **electroluminescence** device elements)

RN 221464-00-2 HCAPLUS
CN 2H-1-Benzopyran-2-one, 7-(diethylamino)-3-[1-[(4-ethenylphenyl)methyl]-1H-benzimidazol-2-yl]-, polymer with 9-ethenyl-9H-carbazole (9CI) (CA INDEX NAME)

CM 1

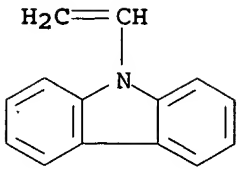
CRN 221463-98-5
CMF C29 H27 N3 O2





CM 2

CRN 1484-13-5
CMF C14 H11 N



IC ICM C08F012-22
ICS C08F024-00; C08F026-06; C08F028-06; C09K011-06; H05B033-14; H05B033-22
CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 35
ST vinyl coumalin polymer **electroluminescence** component
IT Vinyl compounds, properties
RL: PRP (Properties)
(polymers; vinyl polymers and **electroluminescence** device elements)
IT **Electroluminescent** devices
(vinyl polymers and **electroluminescence** device elements)
IT Aromatic hydrocarbons, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(vinyl polymers and **electroluminescence** device elements)
IT 15082-28-7 23467-27-8 25067-59-8, Polyvinylcarbazole
221464-00-2 221464-03-5 225109-97-7 225110-00-9
225110-02-1 225110-05-4 225110-07-6
RL: DEV (Device component use); USES (Uses)
(vinyl polymers and **electroluminescence** device elements)

L23 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:182786 HCAPLUS
DOCUMENT NUMBER: 130:259360
TITLE: Multilayer **electroluminescent** device including vinyl polymer and showing good luminescent characteristics
INVENTOR(S): Kido, Junji; Igarashi, Tatsuya; Okada, Hisashi; Yamanouchi, Junichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11074077	A	19990316	JP 1997-232743	19970828

PRIORITY APPLN. INFO.: JP 1997-232743 19970828

AB Title device, showing excellent durability, contains a polymer containing ≥1 repeating unit [CR1(L1nZ)CH2]m1 [R1 = H, alkyl, aryl; L1 = phenylene, O, CH2, A (Q = 5- or 6-membered azacycle); n1 = 0, 1; m1 ≥ 1; Z1 = fluorescent dye residue].

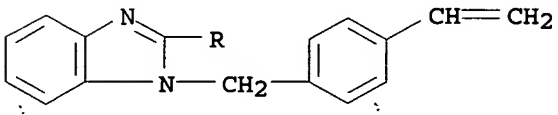
IT **221464-00-2P**
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(multilayer **electroluminescent** device including vinyl polymer and showing good luminescent characteristics)

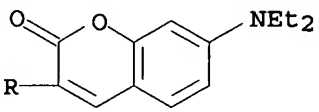
RN 221464-00-2 HCAPLUS

CN 2H-1-Benzopyran-2-one, 7-(diethylamino)-3-[1-[(4-ethenylphenyl)methyl]-1H-benzimidazol-2-yl]-, polymer with 9-ethenyl-9H-carbazole (9CI) (CA INDEX NAME)

CM 1

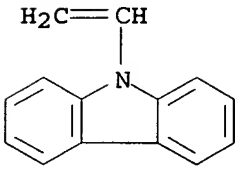
CRN 221463-98-5
CMF C29 H27 N3 O2





CM 2

CRN 1484-13-5
CMF C14 H11 N



IC ICM H05B033-14
ICS C08F012-00; C08F016-14; C08F024-00; C08F026-00; C08F246-00; C08L025-18; C08L029-10; C08L037-00; C08L039-04; C08L057-00; C09K011-06

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 38

ST **electroluminescent** device multilayer vinyl polymer contg; luminance durability laminated **electroluminescent** device

IT **Electroluminescent** devices
(multilayer **electroluminescent** device including vinyl

polymer and showing good luminescent characteristics)
IT 58851-99-3P 221463-98-5P 221463-99-6P
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(in preparation of vinyl monomer for multilayer **electroluminescent** device)
IT 95-01-2, 4-Hydroxysalicylaldehyde 1592-20-7 27425-55-4 29182-42-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(in preparation of vinyl monomer for multilayer **electroluminescent** device)
IT **221464-00-2P** 221464-01-3P 221464-03-5P 221464-04-6P 221464-06-8P 221464-09-1P 221464-11-5P 221464-14-8P 221464-17-1P 221552-95-0P
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(multilayer **electroluminescent** device including vinyl polymer and showing good luminescent characteristics)

=> d l24 ibib abs hitstr hitind 1-8

L24 ANSWER 1 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:723391 HCAPLUS
DOCUMENT NUMBER: 133:303619
TITLE: Heat development photosensitive material for photomechanical process
INVENTOR(S): Fukui, Kota; Oya, Toyoharu
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 56 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000284409	A	20001013	JP 1999-89561	199903 30

PRIORITY APPLN. INFO.: JP 1999-89561 199903 30

OTHER SOURCE(S): MARPAT 133:303619
AB The title photosensitive material, containing a non-photosensitive organic Ag salt, a photosensitive Ag halide, and a binder on a support, contains, on the Ag halide-containing image-forming layer side, a compound WLnQY1CX1Z1Z2 (Z1, Z2 = halo; X1 = H, electron-attracting group; Y1 = CO, SO2; Q = arylene, divalent heterocyclic group; L = linking group; W = carboxyl or its salt, sulfo or its salt, phosphoric acid, OH, quaternary ammonium, polyethyleneoxy; n = 0 or 1) and ≥1 selected from a compound X11JmB1 (X11 = residue of photog. inhibitor having N-containing heterocycle; J = divalent linking group; B1 = ballast; m ≥ 1), a polymer having a repeating unit derived from a compound Q1X12 (Q1 = ethylenic unsatd. group, ethylenic unsatd. group-containing group; X12 = residue of photog. inhibitor having N-containing heterocycle), and a compound A1X13 (A1 = water soluble

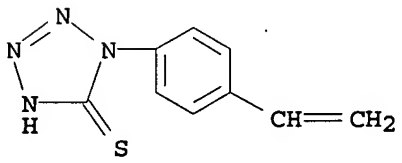
group-containing group; X13 = residue of photog. inhibitor having N-containing heterocycle). The material for scanner and image setter shows high photog. properties and prevents black spot formation even after storage.

IT **288089-65-6**
RL: **DEV (Device component use)**; MOA (Modifier or additive use); USES (Uses)
(heat-developable photog. material containing organic polyhalo compound and development inhibitor)

RN 288089-65-6 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with 1-(4-ethenylphenyl)-1,2-dihydro-5H-tetrazole-5-thione (9CI) (CA INDEX NAME)

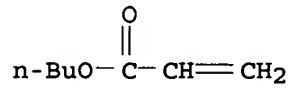
CM 1

CRN 55425-03-1
CMF C9 H8 N4 S



CM 2

CRN 141-32-2
CMF C7 H12 O2



IC ICM G03C001-498
ICS G03C001-498

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 41018-11-5 97916-68-2 253143-84-9 **288089-65-6**
299445-86-6 299446-56-3
RL: **DEV (Device component use)**; MOA (Modifier or additive use); USES (Uses)
(heat-developable photog. material containing organic polyhalo compound and development inhibitor)

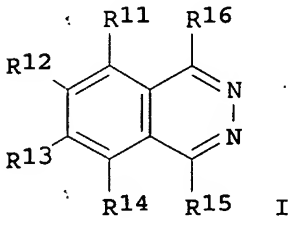
L24 ANSWER 2 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:561005 HCAPLUS
DOCUMENT NUMBER: 133:185579
TITLE: Heat development photographic material and image formation sing same
INVENTOR(S): Oya, Toyoharu
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000227644	A	20000815	JP 1999-30069	19990208

PRIORITY APPLN. INFO.: JP 1999-30069 19990208

OTHER SOURCE(S): MARPAT 133:185579
GI



I

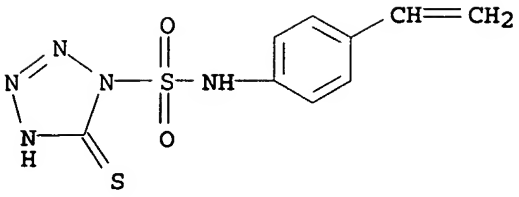
AB The title photog. material contains (a) a reducible Ag salt, (b) a reducing agent, (c) a binder, (d) ≥1 compound I (R11-16 = H or substituents which link each other to form rings)., and (e) ≥1 compound Z1LnB (Z1 = N-containing heterocycle; L = divalent linking group; B = ballast; n = 1-4), ≥1 polymer containing a repeating unit derived from a monomer Z2Q (Z2 = N-containing heterocycle; Q = group having ≥1 C-C double bond) or ≥1 compound Z3A (Z3 = N-containing heterocycle; A = water-soluble group-containing group). The material is heat-developed to form images. The material shows good photog. properties and increase of fog is little upon storage.

IT **212572-06-0 288089-65-6**
RL: **DEV (Device component use)**; MOA (Modifier or additive use); USES (Uses)
(heat-developable photog. material containing phthalazine compound and nitrogen-containing heterocyclic compound)

RN 212572-06-0 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with N-(4-ethenylphenyl)-2,5-dihydro-5-thioxo-1H-tetrazole-1-sulfonamide (9CI) (CA INDEX NAME)

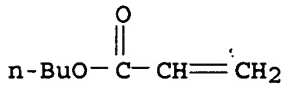
CM 1

CRN 212572-05-9
CMF C9 H9 N5 O2 S2



CM 2

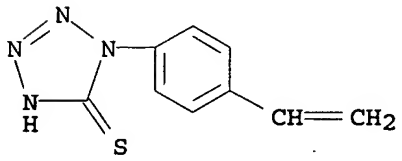
CRN 141-32-2
CMF C7 H12 O2



RN 288089-65-6 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with 1-(4-ethenylphenyl)-1,2-dihydro-5H-tetrazole-5-thione (9CI) (CA INDEX NAME)

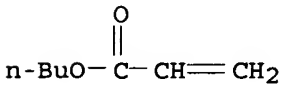
CM 1

CRN 55425-03-1
CMF C9 H8 N4 S



CM 2

CRN 141-32-2
CMF C7 H12 O2



IC ICM G03C001-498
CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 23249-95-8 33694-96-1 38065-29-1 41018-11-5 78032-05-0 80355-73-3 110633-24-4 122882-99-9 126528-88-9 212571-94-3 212572-03-7 **212572-06-0** 212572-09-3 212572-13-9 **288089-65-6** 288314-68-1 288314-71-6 288314-72-7 288314-73-8 288314-74-9

RL: **DEV (Device component use)**; MOA (Modifier or additive use); USES (Uses)
(heat-developable photog. material containing phthalazine compound and nitrogen-containing heterocyclic compound)

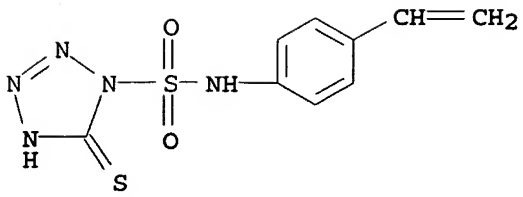
L24 ANSWER 3 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:551231 HCAPLUS
DOCUMENT NUMBER: 133:185449
TITLE: Heat-developable ultrahigh contrast photographic material suitable for printing plate making
INVENTOR(S): Ezoe, Toshihide; Yamada, Kosaburo
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000221633	A	20000811	JP 1999-21974	19990129
PRIORITY APPLN. INFO.:			JP 1999-21974	19990129

OTHER SOURCE(S): MARPAT 133:185449
AB The heat-sensitive photog. material contains (1) a high contrast agent selected from a specific substituted alkene derivative, substituted isoxazole derivative, and acetal compound, (2) X1-Jn-B1 (X1 = photog. development inhibitor containing N-containing ring; J = divalent connection group; B1 = ballast group; n ≥1), (3) polymer containing Q-X2 (Q = ethylenic unsatd. group, group containing ethylenic unsatd. group; X2 = photog. development inhibitor containing N-containing ring) and (4) A1-X3 (A1 = group containing water-soluble group; X3 = photog. development inhibitor containing N-containing ring). The photog. material surface has pH value of 3-7.
IT **212572-06-0 288089-65-6**
RL: **DEV (Device component use)**; USES (Uses)
(in heat-developable ultrahigh contrast photog. material suitable for printing plate making)
RN 212572-06-0 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with N-(4-ethenylphenyl)-2,5-dihydro-5-thioxo-1H-tetrazole-1-sulfonamide (9CI) (CA INDEX NAME)

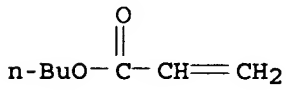
CM 1

CRN 212572-05-9
CMF C9 H9 N5 O2 S2



CM 2

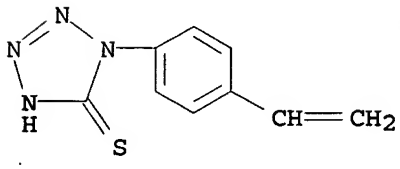
CRN 141-32-2
CMF C7 H12 O2



RN 288089-65-6 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with 1-(4-ethenylphenyl)-1,2-dihydro-5H-tetrazole-5-thione (9CI) (CA INDEX NAME)

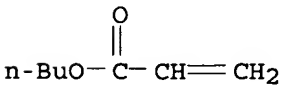
CM 1

CRN 55425-03-1
CMF C9 H8 N4 S



CM 2

CRN 141-32-2
CMF C7 H12 O2



IC ICM G03C001-498
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 7440-66-6D, Zinc, ((dimethylpropyl)phenoxy)propioamidophenyl)formylpyrazoledione complex, uses 23015-22-7 41018-11-5 110608-95-2 110802-27-2 126528-88-9 212571-92-1 **212572-06-0** 212572-13-9 212572-42-4 263553-17-9 282090-76-0 **288089-65-6** 288089-67-8 288089-68-9 288089-69-0

288089-70-3 288089-71-4 288253-32-7D, zinc complex
RL: **DEV (Device component use)**; USES (Uses)
(in heat-developable ultrahigh contrast photog. material suitable for printing plate making)

L24 ANSWER 4 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:493588 HCAPLUS
DOCUMENT NUMBER: 129:142619
TITLE: Negative image recording material
INVENTOR(S): Aoshima, Keitaro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 854388	A2	19980722	EP 1998-100883	19980120
EP 854388	A3	19990929		
EP 854388	B1	20030813		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10203037	A	19980804	JP 1997-7532	19970120
JP 3688839	B2	20050831		
JP 10239794	A	19980911	JP 1997-39019	19970224
JP 3839541	B2	20061101		
US 6068963	A	20000530	US 1998-8487	19980116
PRIORITY APPLN. INFO.:			JP 1997-7532 A	19970120
			JP 1997-39019 A	19970224

AB The present invention provides a neg. image recording material which does not smudge nonimage areas during printing and provides excellent film strength of recorded image areas, and exhibits improved press life. Particularly when the material is used for recording with a variety of laser devices that emit IR rays, the material enables direct plate making from computer digital data. The neg. image recording material of the invention contains (A) a polymer having a heterocyclic group containing an unsatd. bond therein, (B) a crosslinking agent that crosslinks with the aid of an acid, and (C) a compound that generates an acid upon exposure to light or heat.

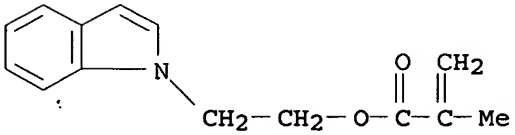
IT **210468-18-1P**
RL: **DEV (Device component use)**; SPN (Synthetic

preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in neg. image recording materials for planog. printing plate preparation)

RN 210468-18-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 1-[(4-ethenylphenyl)methyl]-1H-imidazole and 2-(1H-indol-1-yl)ethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

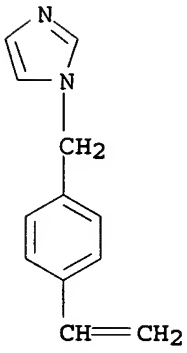
CM 1

CRN 210468-08-9
CMF C14 H15 N O2



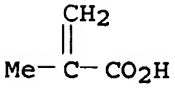
CM 2

CRN 78430-91-8
CMF C12 H12 N2



CM 3

CRN 79-41-4
CMF C4 H6 O2



IC ICM G03F007-038
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 210468-09-0P 210468-11-4P 210468-13-6P 210468-15-8P

210468-17-0P **210468-18-1P** 210468-20-5P 210468-21-6P
210468-23-8P
RL: **DEV (Device component use)**; SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in neg. image recording materials for planog. printing plate preparation)

L24 ANSWER 5 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:239455 HCAPLUS
DOCUMENT NUMBER: 128:309645
TITLE: Ink-jet recording paper having rapid ink absorption for forming water- and light-resistant images
INVENTOR(S): Kasahara, Kenzo; Saito, Yoichi
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

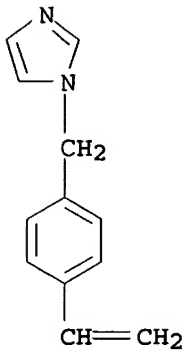
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10100397	A	19980421	JP 1996-261751	19961002
PRIORITY APPLN. INFO.:			JP 1996-261751	19961002

AB The paper comprises a water-nonabsorbing support layer containing acid-modified gelatin and/or image stabilizers, on which having mordant-containing layers which fix water-soluble dyes and porous layers having void volume ≥90% of volume of the maximum ink ejection value. The mordants may be tertiary amine- or quaternary ammonium salt-based polymers. Thus, a polyethylene-laminated paper support was laminated with (i) base layer containing mordant 1,4-diethenylbenzene-1-[(4-ethenylphenyl)methyl]-1H-imidazole-styrene copolymer and phenylcarbamoyl-modified gelatin (I) and PVA, (ii) a internal layer containing CaCO3 and PVA and of void volume 20 mL/m2, and (iii) a top layer containing I and PVA showed excellent lightfastness, water resistance, and dryability.

IT **178633-08-4**
RL: **DEV (Device component use)**; USES (Uses)
(mordants; ink-jet printing paper having porous layers of large void volume and showing rapid ink absorption)
RN 178633-08-4 HCAPLUS
CN 1H-Imidazole, 1-[(4-ethenylphenyl)methyl]-, polymer with 1,4-diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

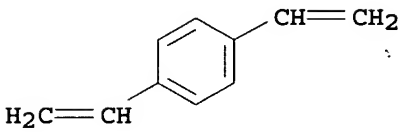
CM 1

CRN 78430-91-8
CMF C12 H12 N2



CM 2

CRN 105-06-6
CMF C10 H10



CM 3

CRN 100-42-5
CMF C8 H8

H_2C═CH—Ph

IC ICM B41J002-01
ICS C09B065-00
CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)
Section cross-reference(s): 41, 74
IT **178633-08-4** 206192-98-5
RL: **DEV (Device component use)**; USES (Uses)
(mordants; ink-jet printing paper having porous layers of large void volume and showing rapid ink absorption)

L24 ANSWER 6 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:73658 HCAPLUS
DOCUMENT NUMBER: 128:198653
TITLE: Ink-jet printing receptor paper containing polymer mordant
INVENTOR(S): Kasahara, Kenzo
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10029369	A	19980203	JP 1996-186200	199607 16

PRIORITY APPLN. INFO.: JP 1996-186200 199607 16

AB The paper comprises a support coated with a layer containing a polymer mordant AxByCzDu (A = repeating unit derived from copolymerizable monomers having tert-amino or quaternary ammonium group, B = repeating unit having a group able to quench singlet O or absorb UV rays, C = repeating unit containing ≥2 ethylenic unsatd. groups, and D = repeating unit containing an ethylenic unsatd. group other than A and B; x = 10-90, y = 10-90, z = 0-10, u = 0-80 mol%, x + y + Z + u = 100 mol%). The paper provides high quality images with good resistance to water, moisture, and light when printed by ink-jet printing using water-soluble dyes. Thus, a polyethylene-laminated paper support was coated with a composition containing phenylcarbamoyled gelatin, poly(vinyl alc.), and 4-vinylpyridine-2-methyl-4-hydroxy-5-tert-butylphenyl acrylate-Bu acrylate-hydroxymethyl methacrylate copolymer to give an ink-jet printing paper.

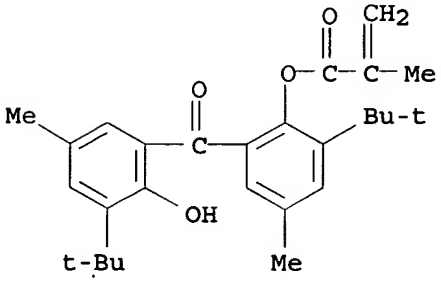
IT **203635-12-5**
RL: **DEV (Device component use)**; USES (Uses)
(ink-jet printing receptor paper containing polymer mordant)

RN 203635-12-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 2-(1,1-dimethylethyl)-6-[3-(1,1-dimethylethyl)-2-hydroxy-5-methylbenzoyl]-4-methylphenyl 2-methyl-2-propenoate, ethenylbenzene and 1-[(4-ethenylphenyl)methyl]-1H-imidazole (9CI) (CA INDEX NAME)

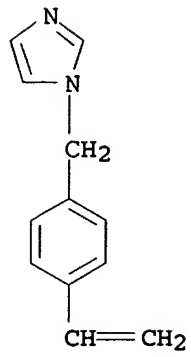
CM 1

CRN 203635-11-4
CMF C27 H34 O4



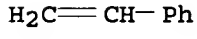
CM 2

CRN 78430-91-8
CMF C12 H12 N2



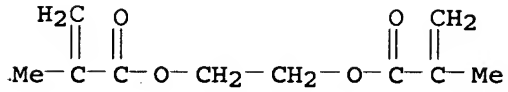
CM 3

CRN 100-42-5
CMF C8 H8



CM 4

CRN 97-90-5
CMF C10 H14 O4



IC ICM B41M005-00
ICS B05D005-04; B32B027-00; C08F020-60; C08F026-06; C09D011-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 203635-09-0 203635-10-3 **203635-12-5** 203635-13-6
RL: **DEV (Device component use)**; USES (Uses)
(ink-jet printing receptor paper containing polymer mordant)

L24 ANSWER 7 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:545593 HCAPLUS
DOCUMENT NUMBER: 125:181148
TITLE: Silver halide photographic element and its processing
INVENTOR(S): Takamukai, Yasuhiko
PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08160561	A	19960621	JP 1994-303642	19941207

PRIORITY APPLN. INFO.: JP 1994-303642 19941207

AB The element with gelatin content 1.3-2.5 g/m2 has a Se-sensitized Ag halide emulsion layer with content of particles having aspect ratio ≥2 ≥50% and a nonphotosensitive hydrophilic colloid layer, where the emulsion layer and/or the colloid layer contains AxBy (A = ethylenically unsatd. monomer unit having heterocyclic group containing ≥1 basic N atom; A ≠ B; x = 0.1-100; y = 0-99.9). The element is developed by refilling a 35-98-mL/m2 solution for 10-30 s. The element showed high sensitivity and improved pressure characteristics.

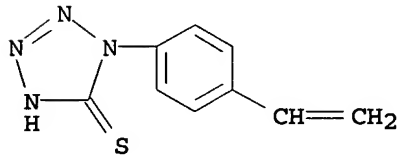
IT **180681-06-5**
RL: **DEV (Device component use)**; MOA (Modifier or additive use); USES (Uses)
(high-sensitivity silver halide photog. element containing heterocyclic group-containing ethylene polymer and its processing)

RN 180681-06-5 HCAPLUS

CN 5H-Tetrazole-5-thione, 1-(4-ethenylphenyl)-1,2-dihydro-, polymer with 2-propen-1-amine (9CI) (CA INDEX NAME)

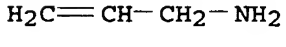
CM 1

CRN 55425-03-1
CMF C9 H8 N4 S



CM 2

CRN 107-11-9
CMF C3 H7 N



IC ICM G03C001-053
ICS G03C001-035; G03C001-09; G03C001-32; G03C001-95; G03C005-26; G03C005-31

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT 1314-60-9, Antimony pentaoxide 1344-28-1, Alumina, uses 7631-86-9, Colloidal silica, uses 29297-55-0 110432-29-6

180681-06-5 180681-08-7 180681-10-1 180681-12-3
RL: **DEV (Device component use)**; MOA (Modifier or additive use); USES (Uses)
(high-sensitivity silver halide photog. element containing heterocyclic group-containing ethylene polymer and its processing)

L24 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:431185 HCAPLUS
DOCUMENT NUMBER: 125:71731
TITLE: Manufacture of diffusion-transfer image-receiving material
INVENTOR(S): Oohayashi, Keiji; Tsucha, Masaru
PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08095216	A	19960412	JP 1994-229773	199409 26

PRIORITY APPLN. INFO.: JP 1994-229773 199409 26

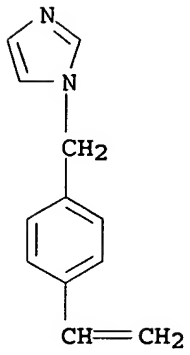
AB In manufacture of the image-receiving material comprising a support having thereon a hydrophilic binder and a base precursor which releases a base by complexation reaction, a coating solution for ≥1 hydrophilic binder-containing layer formed on the side containing the basic precursor against the support contains a carbonate salt so that pH of the coating surface after drying becomes ≥9. The base precursor is preferably a compound which releases a base by complexation reaction in the presence of Zn(OH)2 and H2O. An image-receiving material with high-pH surface is obtained and provides color images with high d. and contrast.

IT **178633-08-4**
RL: **DEV (Device component use)**; USES (Uses)
(mordant; manufacture of diffusion-transfer image-receiving material using coating composition containing carbonate salt)

RN 178633-08-4 HCAPLUS
CN 1H-Imidazole, 1-[(4-ethenylphenyl)methyl]-, polymer with 1,4-diethenylbenzene and ethenylbenzene (9CI) (CA INDEX NAME)

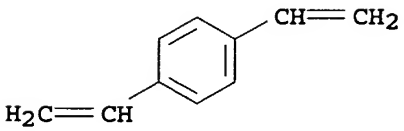
CM 1

CRN 78430-91-8
CMF C12 H12 N2



CM 2

CRN 105-06-6
CMF C10 H10



CM 3

CRN 100-42-5
CMF C8 H8

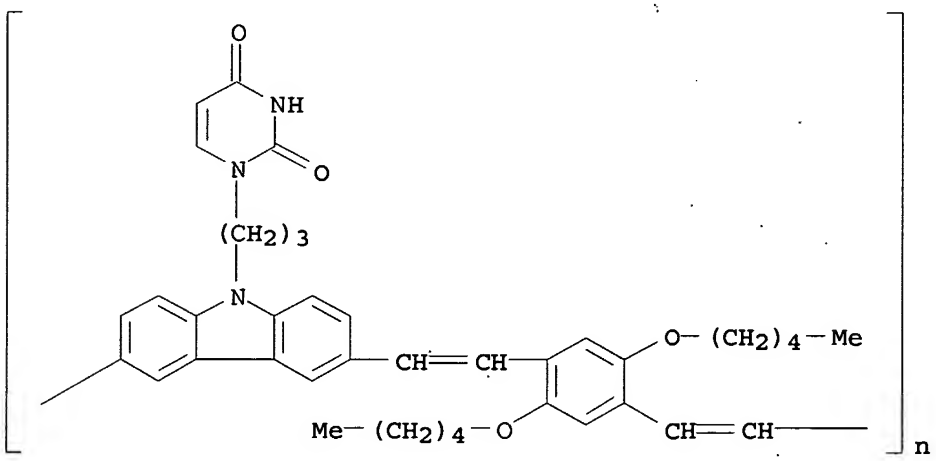
$H_2C{=}CH{-}Ph$

IC ICM G03C008-40
ICS G03C008-40; G03C008-26; G03C008-56
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT **178633-08-4**
RL: **DEV (Device component use)**; USES (Uses)
(mordant; manufacture of diffusion-transfer image-receiving material using coating composition containing carbonate salt)

=> d l30 ibib abs hitstr hitind 1-15

L30 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:666690 HCAPLUS
DOCUMENT NUMBER: 140:60112
TITLE: Three-Point Hydrogen Bonding Assembly between a Conjugated PPV and a Functionalized Fullerene
AUTHOR(S): Li, Yuliang; Zhu, Daoben; Xiao, Shengqiang; Liu, Huibiao
CORPORATE SOURCE: Center for Molecular Science, Institute of

Chemistry, Chinese Academy of Sciences, Beijing, 100080, Peop. Rep. China
SOURCE: PMSE Preprints (2003), 89, 326-328
CODEN: PPMRA9; ISSN: 1550-6703
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB A uracil-containing polyphenylenevinylene interacted with DAP-C60 containing 2,6-diacylamidopyridine through H bonding to give a supramol. system. Fluorescence quenching expts. indicated a strong interaction between the 2 components (KSV = 5.8 + 104 M-1). An FESEM image of the system showed that the assembly consisted of particles having mean diameter 75 nm.
IT **532933-06-5DP**, thermally converted, reaction products with diacylamidopyridine-containing C60 fullerene derivative
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(three-point hydrogen bonding assembly between conjugated polyphenylenevinylene derivative and functionalized fullerene)
RN 532933-06-5 HCAPLUS
CN Poly[[9-[3-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)propyl]-9H-carbazole-3,6-diyl]-1,2-ethenediyl[2,5-bis(pentyloxy)-1,4-phenylene]-1,2-ethenediyl] (9CI) (CA INDEX NAME)



CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): **73**
IT 532933-04-3DP, thermally converted, reaction products with diacylamidopyridine-containing C60 fullerene derivative 532933-05-4DP, reaction products with uracil-containing polyphenylenevinylene derivative **532933-06-5DP**, thermally converted, reaction products with diacylamidopyridine-containing C60 fullerene derivative
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(three-point hydrogen bonding assembly between conjugated polyphenylenevinylene derivative and functionalized fullerene)
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

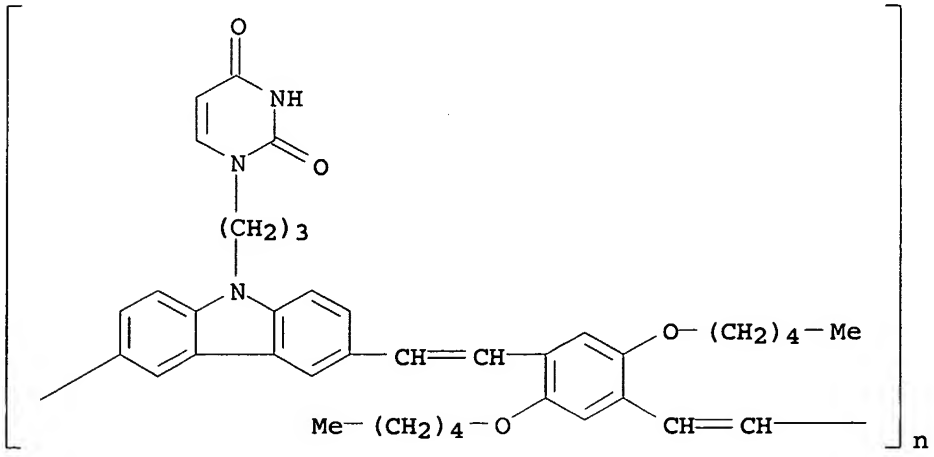
L30 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:286642 HCAPLUS

DOCUMENT NUMBER: 139:7347
TITLE: Three-Point Hydrogen Bonding Assembly between a Conjugated PPV and a Functionalized Fullerene
AUTHOR(S): Fang, Hongjuan; Wang, Shu; Xiao, Shengqiang; Yang, Junlin; Li, Yuliang; Shi, Zhiqiang; Li, Hongmei; Liu, Huibiao; Xiao, Shengxiong; Zhu, Daoben
CORPORATE SOURCE: Graduate School of Chinese Academy of Sciences, Center for Molecular Sciences, Institute of Chemistry, Chinese Academy of Sciences, Beijing, 100080, Peop. Rep. China
SOURCE: Chemistry of Materials (2003), 15(8), 1593-1597
CODEN: CMATEX; ISSN: 0897-4756
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A new self-assembly system between a PPV derivative and an organofullerene through a three-point hydrogen-bonding interaction was prepared The formation of hydrogen bonding was confirmed by 1H NMR studies in CDCl3. Fluorescence quenching expts. indicated that the fluorescence of uracil-containing polyphenylenevinylene derivative U-PPV was greatly quenched by 2,6-diacylamidopyridine-containing compound DAP-C60 (KSV = 5.8 + 104 M-1).

IT **532933-06-5DP**, thermally converted, reaction products with diacylamidopyridine-containing C60 fullerene derivative
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(three-point hydrogen bonding assembly between conjugated polyphenylenevinylene derivative and functionalized fullerene)

RN 532933-06-5 HCAPLUS
CN Poly[[9-[3-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)propyl]-9H-carbazole-3,6-diyl]-1,2-ethenediyl[2,5-bis(pentyloxy)-1,4-phenylene]-1,2-ethenediyl] (9CI) (CA INDEX NAME)



CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): **73**

IT 532933-04-3DP, thermally converted, reaction products with diacylamidopyridine-containing C60 fullerene derivative 532933-05-4DP, reaction products with uracil-containing polyphenylenevinylene derivative **532933-06-5DP**, thermally converted, reaction products with diacylamidopyridine-containing C60 fullerene derivative

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(three-point hydrogen bonding assembly between conjugated polyphenylenevinylene derivative and functionalized fullerene)
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:741146 HCAPLUS
DOCUMENT NUMBER: 138:39648
TITLE: Poly(arylene ether)s containing 1,2,4-triazole and phthalimide or naphthalimide moieties joined by a N-N linkage
AUTHOR(S): Shaikh, Abbas Alli G.; Hlil, Antisar R.; Shaikh, Parvin A.; Hay, Allan S.
CORPORATE SOURCE: Department of Chemistry, McGill University, Montreal, QC, H3A2K6, Can.
SOURCE: Macromolecules (2002), 35(23), 8728-8737
CODEN: MAMOBX; ISSN: 0024-9297
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The synthesis and characterization of new monomers and polymers containing the 1,2,4-triazole group are described. A model reaction of 4-N-amino-3,5-diphenyltriazole with phthalic and naphthalic anhydride demonstrated the preparation of the 1,2,4-triazole-imide compds. containing a N-N linkage. From 4-amino-3,5-bis(4-hydroxyphenyl)triazole four new bisphenols with pendent phthalimide or naphthalimide moieties linked through a N-N linkage were prepared in a one-step reaction in high yield. Poly(aryl ether)s were synthesized from these bisphenols, or their carbamate derivs., by reaction with various activated arylene difluorides. The reactions were carried out in DMSO in the presence of potassium carbonate to yield high mol. weight, amorphous, and thermally stable polymers with pendent imide moieties joined by a N-N linkage. A new bisphenol with a pendent 3,5-diphenyl-1,2,4-triazole was prepared by an imidization reaction of an anhydride bisphenol with 4-amino-3,5-diphenyltriazole. Polymerization with activated difluoro compds. gave poly(aryl ether)s with a pendent 1,2,4-triazole moiety. These polymers had high Tg's, from 222 to 283 °C. Copolymers containing the 1,2,4-triazole in the polymer backbone as well as pendent were also prepared Using decafluorobiphenyl as coreactant, extremely high mol. weight polymers were obtained at lower polymerization temperature, 90-100 °C, in a shorter reaction time. The polymers formed clear, transparent, flexible, and tough films from DMF solution Many of the polymers showed strong blue to greenish-yellow fluorescence from 428 to 510 nm in solution and in the solid state under UV, depending upon the monomer composition of the polymer.
IT **478416-22-7P 478416-24-9P 478416-26-1P 478416-27-2P 478416-28-3P 478416-29-4P 478416-61-4P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of aromatic polyethers containing 1,2,4-triazole and phthalimide or naphthalimide moieties joined by a N-N linkage)
RN 478416-22-7 HCAPLUS
CN Poly[[4-(1,3-dihydro-1,3-dioxo-4,5,6,7-tetraphenyl-2H-isoindol-2-yl)-

4H-1,2,4-triazole-3,5-diyl]-1,4-phenyleneoxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
RN 478416-24-9 HCAPLUS
CN Poly[[4-(1,3-dihydro-1,3-dioxo-4,5,6,7-tetraphenyl-2H-isoindol-2-yl)-4H-1,2,4-triazole-3,5-diyl]-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

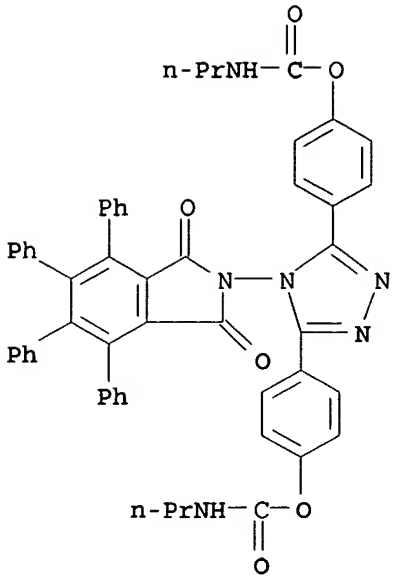
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
RN 478416-26-1 HCAPLUS
CN Poly[[4-(1,3-dihydro-1,3-dioxo-4,5,6,7-tetraphenyl-2H-isoindol-2-yl)-4H-1,2,4-triazole-3,5-diyl]-1,4-phenyleneoxy-1,4-phenylene(phenylphosphinylidene)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
RN 478416-27-2 HCAPLUS
CN Carbamic acid, propyl-, [4-(1,3-dihydro-1,3-dioxo-4,5,6,7-tetraphenyl-2H-isoindol-2-yl)-4H-1,2,4-triazole-3,5-diyl]di-4,1-phenylene ester, polymer with 1,1'-sulfonylbis[4-fluorobenzene] (9CI) (CA INDEX NAME)

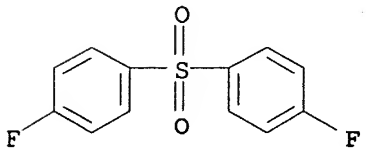
CM 1

CRN 478415-99-5
CMF C54 H44 N6 O6



CM 2

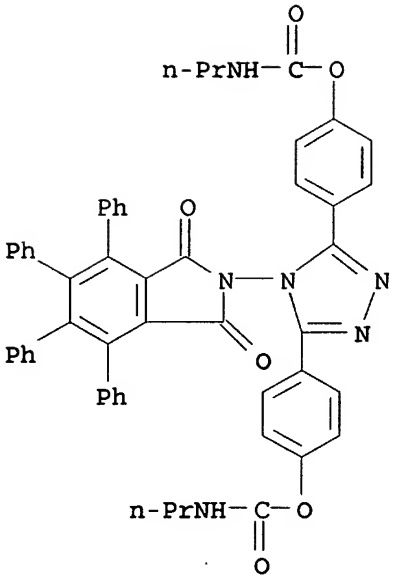
CRN 383-29-9
CMF C12 H8 F2 O2 S



RN 478416-28-3 HCAPLUS
CN Carbamic acid, propyl-, [4-(1,3-dihydro-1,3-dioxo-4,5,6,7-tetraphenyl-2H-isoindol-2-yl)-4H-1,2,4-triazole-3,5-diyl]di-4,1-phenylene ester, polymer with bis(4-fluorophenyl)methanone (9CI) (CA INDEX NAME)

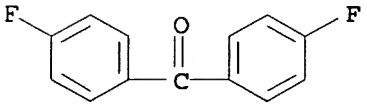
CM 1

CRN 478415-99-5
CMF C54 H44 N6 O6



CM 2

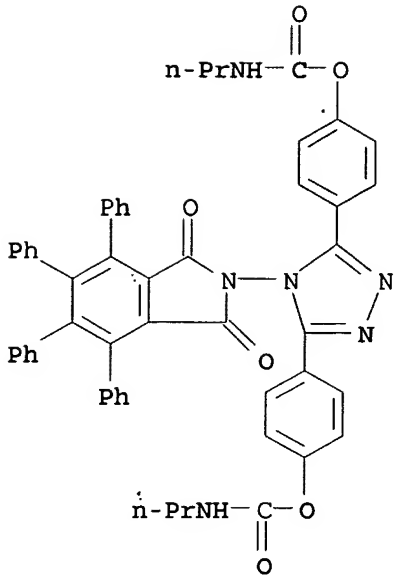
CRN 345-92-6
CMF C13 H8 F2 O



RN 478416-29-4 HCAPLUS
CN Carbamic acid, propyl-, [4-(1,3-dihydro-1,3-dioxo-4,5,6,7-tetraphenyl-2H-isoindol-2-yl)-4H-1,2,4-triazole-3,5-diyl]di-4,1-phenylene ester, polymer with bis(4-fluorophenyl)phenylphosphine oxide (9CI) (CA INDEX NAME)

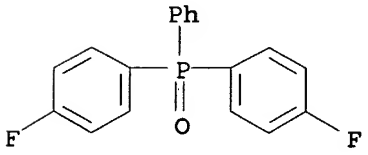
CM 1

CRN 478415-99-5
CMF C54 H44 N6 O6



CM 2

CRN 54300-32-2
CMF C18 H13 F2 O P



RN 478416-61-4 HCAPLUS
CN Poly[[4-(1,3-dihydro-1,3-dioxo-4,5,6,7-tetraphenyl-2H-isoindol-2-yl)-4H-1,2,4-triazole-3,5-diyl]-1,4-phenyleneoxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)oxy-1,4-phenylene] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 73
IT 478416-03-4P 478416-04-5P 478416-05-6P 478416-06-7P
478416-07-8P 478416-08-9P 478416-09-0P 478416-10-3P
478416-11-4P 478416-12-5P 478416-13-6P 478416-14-7P
478416-15-8P 478416-16-9P 478416-17-0P 478416-18-1P
478416-19-2P 478416-20-5P 478416-21-6P **478416-22-7P**
478416-23-8P **478416-24-9P** 478416-25-0P

478416-26-1P 478416-27-2P 478416-28-3P
478416-29-4P 478416-30-7P 478416-31-8P 478416-32-9P
478416-33-0P 478416-34-1P 478416-35-2P 478416-36-3P
478416-37-4P 478416-38-5P 478416-39-6P 478416-40-9P
478416-41-0P 478416-42-1P 478416-43-2P 478416-44-3P
478416-46-5P 478416-48-7P 478416-51-2P 478416-53-4P
478416-54-5P 478416-55-6P 478416-56-7P 478416-57-8P
478416-58-9P 478416-59-0P 478416-60-3P **478416-61-4P**
478416-62-5P 478416-63-6P 478416-64-7P 478416-65-8P
478416-66-9P 478416-67-0P 478416-68-1P 478416-69-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of aromatic polyethers containing 1,2,4-triazole and phthalimide or naphthalimide moieties joined by a N-N linkage)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:426991 HCAPLUS
DOCUMENT NUMBER: 131:122868
TITLE: Silver halide color photographic material
INVENTOR(S): Kubo, Nobuo; Onodera, Kaoru
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 57 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

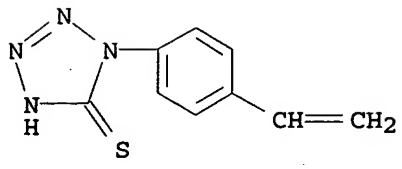
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11184040	A	19990709	JP 1997-357175	19971225

PRIORITY APPLN. INFO.: JP 1997-357175 19971225

OTHER SOURCE(S): MARPAT 131:122868
AB In the Ag halide color photog. material comprising a support, at least 1 red-sensitive Ag halide emulsion layer, at least 1 green-sensitive Ag halide emulsion layer, at least 1 blue-sensitive Ag halide emulsion layer, and light-insensitive layers, the light-insensitive layer contains at least a specific compound capable of adsorbing Ag ion or Ag complex. The specific compound may be selected from phosphazine compound, polymer, latex, etc. The material is especially suitable as a color reversal photog. material and interimage-effects are improved.
IT **232938-75-9 232947-16-9**
RL: MOA (Modifier or additive use); USES (Uses)
(additive to interlayer of silver halide color photog. material for improving interimage-effects)
RN 232938-75-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 1-(4-ethenylphenyl)-1,2-dihydro-5H-tetrazole-5-thione and hexyl 2-propenoate (9CI) (CA INDEX NAME)

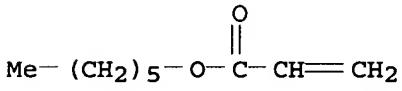
CM 1

CRN 55425-03-1
CMF C9 H8 N4 S



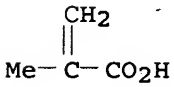
CM 2

CRN 2499-95-8
CMF C9 H16 O2



CM 3

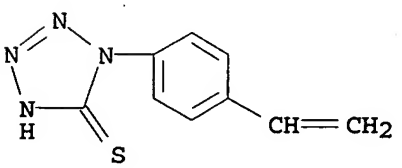
CRN 79-41-4
CMF C4 H6 O2



RN 232947-16-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 1-(4-ethenylphenyl)-1,2-dihydro-5H-tetrazole-5-thione and sodium ethenylbenzenesulfonate (9CI) (CA INDEX NAME)

CM 1

CRN 55425-03-1
CMF C9 H8 N4 S



CM 2

CRN 27457-28-9
CMF C8 H8 O3 S . Na
CCI IDS

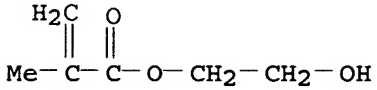
D1— CH═ CH_2

D1— SO_3H

● Na

CM 3

CRN 868-77-9
CMF C6 H10 O3



IC ICM G03C001-76
ICS G03C001-43; G03C007-00
CC **74-2** (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 940-71-6D, phenoxy derivative, cyclo matrix polymer 1184-10-7 4858-32-6 5032-83-7 7428-45-7 26085-02-9D, Poly[nitrilo(dichlorophosphoranylidyne)], diphenoxy group containing 92996-70-8 212571-97-6 232938-52-2 232938-53-3 232938-54-4 232938-55-5 232938-56-6 232938-57-7 232938-58-8 232938-60-2 232938-62-4 232938-63-5 232938-64-6 232938-66-8 232938-68-0 232938-69-1 232938-71-5 232938-72-6 232938-73-7 232938-74-8 **232938-75-9** 232938-76-0 232938-77-1 232938-79-3 232938-81-7 232938-82-8 232938-84-0 232938-85-1 232938-87-3 232938-88-4 232938-89-5 232938-90-8 **232947-16-9**
RL: MOA (Modifier or additive use); USES (Uses)
(additive to interlayer of silver halide color photog. material for improving interimage-effects)

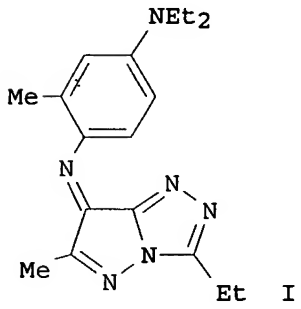
L30 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:392736 HCAPLUS
DOCUMENT NUMBER: 131:60146
TITLE: Thermosensitive sublimation recording material with good storage stability
INVENTOR(S): Nakamura, Masaki; Asatake, Atsushi
PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11165473	A	19990622	JP 1997-334048	19971204

PRIORITY APPLN. INFO.: JP 1997-334048 19971204

GI



I

AB Title recording material comprises a colorant donor material and a colorant acceptor material, one of which contains a three-value boron compound, wherein the image is formed by thermal diffusion of the colorant to colorant acceptor. Thus, polyvinyl acetal (Eslec KS 1) 20 g and colorant I 10 g were coated on a PET base as 2.3 g/m2 to form a colorant donor material, and boric acid 2.0, polyester resin (Vylon 200) 6.0, and polyester-modified silicone methylethylketone 0.3 g were coated on polyethylene-paper laminate to form a colorant acceptor material for thermal printer recording, showing image concentration 2.14, image penetration 5 (5 best, a worst) and white ground concentration 0.03.

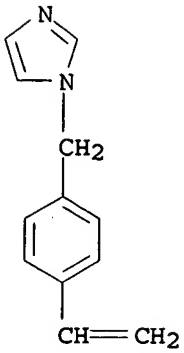
IT **226881-44-3**
RL: TEM (Technical or engineered material use); USES (Uses)
(in colorant acceptor material; thermosensitive sublimation recording material with good storage stability)

RN 226881-44-3 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 1-[(4-ethenylphenyl)methyl]-1H-imidazole and 2-propenamide (9CI) (CA INDEX NAME)

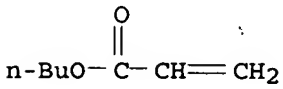
CM 1

CRN 78430-91-8
CMF C12 H12 N2



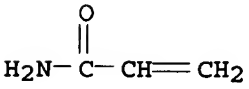
CM 2

CRN 141-32-2
CMF C7 H12 O2



CM 3

CRN 79-06-1
CMF C3 H5 N O



IC ICM B41M005-38
ICS C07F005-02
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): **74**
IT 55-22-1, 4-Pyridinecarboxylic acid, uses 98-80-6, Phenylboric acid 150-46-9, Triethyl borate 960-71-4, Triphenyl borane 1095-03-0, Triphenyl borate 10043-35-3, Boric acid, uses 37337-82-9, Vylon 200 **226881-44-3**
RL: TEM (Technical or engineered material use); USES (Uses)
(in colorant acceptor material; thermosensitive sublimation recording material with good storage stability)

L30 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:555880 HCAPLUS
DOCUMENT NUMBER: 129:237713
TITLE: Thermographic black and white photographic material with high contrast and fog resistance and image-forming method using it
INVENTOR(S): Yamada, Taketoshi; Komamura, Tawara

PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10228077	A	19980825	JP 1997-31939	199702 17

PRIORITY APPLN. INFO.: JP 1997-31939 199702 17

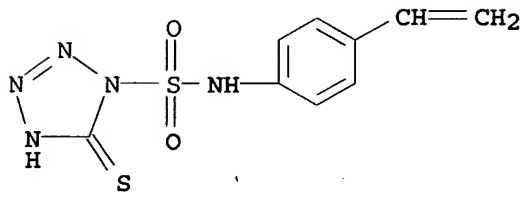
AB The material contains at least a binder, a Ag halide, an organic Ag salt, a hydrazine derivative, and one of the following compds. (1) X1JnB (X1 = residue of a photog. fog inhibitor with N-containing heterocyclic ring; J = bivalent linking group; B = ballast group; n ≥1); (2) a polymer containing QX2 (Q = ethylenically unsatd. group; group having an ethylenically unsatd. group; X2 = X1); (3) AX3 (A = water-soluble group; X3 = X1). A black and white image is formed by developing the material for 1-180 s. The material shows high contrast, improved storage stability for a long time, and less fogging of an unexposed area after development.

IT **212572-06-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(fog inhibitor; thermog. black and white organic silver salt photog. material containing fog inhibitor)

RN 212572-06-0 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with N-(4-ethenylphenyl)-2,5-dihydro-5-thioxo-1H-tetrazole-1-sulfonamide (9CI) (CA INDEX NAME)

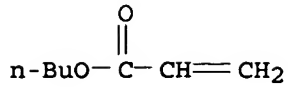
CM 1

CRN 212572-05-9
CMF C9 H9 N5 O2 S2



CM 2

CRN 141-32-2
CMF C7 H12 O2



IC ICM G03C001-498
ICS G03C001-498
CC **74-7** (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
IT 33694-96-1 41018-11-5 97916-68-2 99131-26-7 110179-28-7
110608-95-2 110633-25-5 110802-27-2 212571-89-6 212571-92-1
212571-94-3 212571-97-6 212572-00-4 212572-03-7
212572-06-0 212572-09-3 212572-13-9 212572-15-1
212572-17-3 212572-20-8 212572-22-0 212572-28-6 212572-32-2
212572-35-5 212572-40-2 212572-42-4 212572-44-6
RL: TEM (Technical or engineered material use); USES (Uses)
(fog inhibitor; thermog. black and white organic silver salt photog. material containing fog inhibitor)

L30 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:285110 HCAPLUS
DOCUMENT NUMBER: 120:285110
TITLE: Processing solution for diffusion-transfer lithographic plate
INVENTOR(S): Hashimoto, Takimi; Miura, Taketoshi; Haino, Kozo
PATENT ASSIGNEE(S): Mitsubishi Paper Mills Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

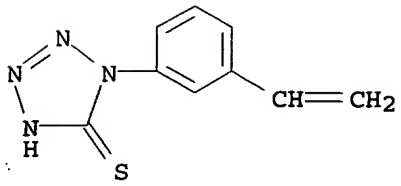
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05309969	A	19931122	JP 1992-116209	19920508

PRIORITY APPLN. INFO.: JP 1992-116209 19920508

AB The solution, used after development of the Ag salt diffusion-transfer lithog. plate, contains a water soluble copolymer with average mol. weight 1000-200,000 [CH2CH(CONH2)]l[CH2CH(Z1R1)]m[CH2CH(Z2R2)]n [R1 = hydrophilic substituent, R2 = substituent having affinity to metals, Z1-2 = none, linkage; m = 0-20, n = 0.1-40, l =(100-m-n) mol%]. The solution gives plate with printing durability and gives printings without greasing.
IT **154924-37-5**
RL: USES (Uses)
(processing solution containing, for diffusion-transfer lithog. plate)
RN 154924-37-5 HCAPLUS
CN 2-Propenamide, polymer with 1-(3-ethenylphenyl)-1,2-dihydro-5H-tetrazole-5-thione (9CI) (CA INDEX NAME)

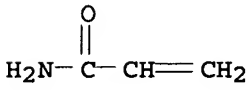
CM 1

CRN 154924-36-4
CMF C9 H8 N4 S



CM 2

CRN 79-06-1
CMF C3 H5 N O



IC ICM B41N003-08
ICS G03F007-07
CC **74-6** (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 25988-82-3 25988-83-4 53232-07-8 154924-31-9 154924-32-0 154924-33-1 154924-34-2 154924-35-3 **154924-37-5** 154924-39-7 154924-40-0
RL: USES (Uses)
(processing solution containing, for diffusion-transfer lithog. plate)

L30 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:125340 HCAPLUS
DOCUMENT NUMBER: 110:125340
TITLE: Electrophotographic lithographic printing plate precursor
INVENTOR(S): Kato, Eiichi; Ishii, Kazuo
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 284748	A2	19881005	EP 1988-102036	198802 11
EP 284748	A3	19900124		
EP 284748	B1	19931222		
R: DE, GB				
JP 63197964	A	19880816	JP 1987-28345	

					198702 12
JP 01070769	A	19890316	JP 1987-226694		198709 11
PRIORITY APPLN. INFO.:			JP 1987-28345	A	198702 12
			JP 1987-226694	A	198709 11

AB An electrophotog. lithog. printing plate precursor giving a printing plate having excellent printing durability comprises a conductive support with ≥1 photoconductive layer and an outermost surface layer containing ≥1 resin having ≥1 functional group capable of forming a carboxyl group upon decomposition The surface layer can be rendered highly hydrophilic while exhibiting water resistance when subjected to oil-desensitization processing after toner image formation. Thus, a composite electrophotog. plate with a charge-generating layer containing a bisazo pigment and a charge-transporting layer containing a hydrazone was overcoated with a Et methacrylate-tert-butyldimethylsilyl methacrylate copolymer in PhMe, dried, exposed, and processed in an ELP-T automatic platemaking machine to give a plate capable of producing 10,000 prints with clear images and no fog in the nonimage areas.

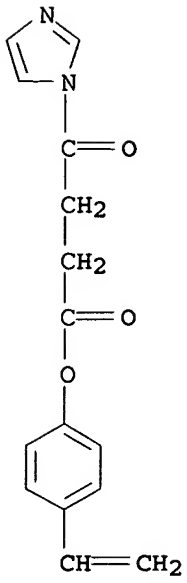
IT **119360-00-8**
RL: USES (Uses)
(electrophotog. lithog. plate precursor with surface layer containing)

RN 119360-00-8 HCAPLUS

CN 1H-Imidazole-1-butanoic acid, γ-oxo-, 4-ethenylphenyl ester, polymer with phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

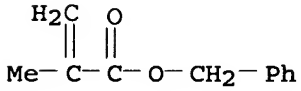
CM 1

CRN 119359-99-8
CMF C15 H14 N2 O3



CM 2

CRN 2495-37-6
CMF C11 H12 O2



IC ICM G03G013-28
CC **74-3** (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 113880-92-5 119212-13-4 119212-15-6 119212-16-7 119212-18-9
119212-20-3 119359-80-7 119359-82-9 119359-84-1 119359-85-2
119359-87-4 119359-89-6 119359-96-5 119359-98-7
119360-00-8 119380-12-0 119380-14-2
RL: USES (Uses)
(electrophotog. lithog. plate precursor with surface layer containing)

L30 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:626030 HCAPLUS
DOCUMENT NUMBER: 107:226030
TITLE: Thermally developable light-sensitive material
INVENTOR(S): Kohno, Junichi; Okauchi, Ken; Goto, Sohei; Iwagaki, Masaru; Komamura, Tawara
PATENT ASSIGNEE(S): Konishiroku Photo Industry Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 217 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

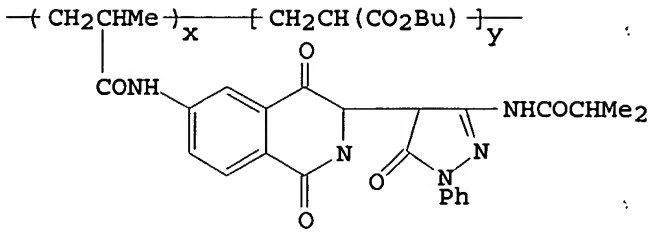
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 218385	A2	19870415	EP 1986-307083	19860915
EP 218385	A3	19900321		
EP 218385	B1	19920729		
EP 218385	B2	19970514		
R: DE, FR, GB				
JP 62065035	A	19870324	JP 1985-205129	19850917
JP 04077892	B	19921209		
JP 62078554	A	19870410	JP 1985-218769	19851001
JP 04027538	B	19920512		
JP 62090647	A	19870425	JP 1985-232263	19851017
JP 05002220	B	19930112		
JP 62121452	A	19870602	JP 1985-262177	19851120
JP 05088818	B	19931224		
JP 62123456	A	19870604	JP 1985-263564	19851122
JP 06001364	B	19940105		
US 4837141	A	19890606	US 1988-191781	19880503
US 5064753	A	19911112	US 1990-576158	19900830
PRIORITY APPLN. INFO.:			JP 1985-205129 A	19850917
			JP 1985-218769 A	19851001
			JP 1985-232263 A	19851017
			JP 1985-262177 A	19851120
			JP 1985-263564 A	19851122
			JP 1985-215948 A	19850928

US 1986-907670 A1 198609 15

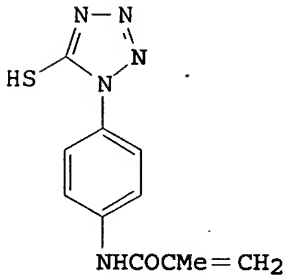
US 1987-60390 B2 198705 07

US 1989-336216 B1 198906 15

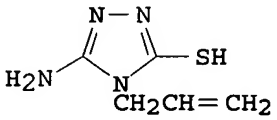
GI



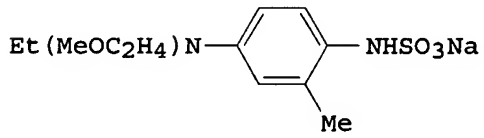
II



III



IV



V

AB A thermally developable diffusion-transfer light-sensitive image-forming material is comprised of ≥1 Ag halide light-sensitive layer and a compound having the general formula R[ZmR1]n (I; R = a residue of a development restrainer; Z = a divalent linkage; R1 = an immobilizing group that is capable of reducing the diffusibility of I or its Ag salt or complex during thermal development; m = 0.1; n = 1-3) as a development restrainer. The image-forming material only produces limited fog during thermal development. Thus, a diffusion-transfer light-sensitive image-forming material prepared from a Ag halide emulsion, a 5-methylbenzotriazole Ag salt dispersion in poly(N-vinylpyrrolidone), a dye-providing composition containing the dye former II, development restrainer III-Bu acrylate copolymer, 2,5-di-tert-octyl-4-hydroxyphenol, and phenylcarbamoylated gelatin,

a developer solution containing development accelerator IV, a F-containing surfactant, reducing agent V, and poly(N-vinylpyrrolidone), and other additives [polyethylene glycol, 3-methylpentane-1,3,5-triol, and taurine-tetrakis(vinylsulfonylmethyl)methane reaction products] was coated on a subbed PET support, exposed through a step wedge, superposed with a receptor paper coated with poly(vinyl chloride), and heated at 150° to give a magenta image on the receptor paper with Dmax 2.47 and Dmin 0.06 vs. 2.78 and 1.48, resp., for a control using a known restrainer.

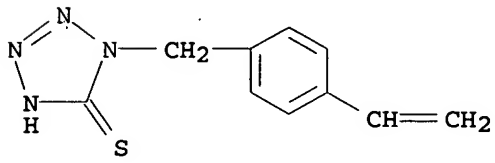
IT **110608-97-4**
RL: USES (Uses)
(diffusion-transfer photothermog. materials containing photosensitive silver halide and)

RN 110608-97-4 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 1-[(4-ethenylphenyl)methyl]-1,2-dihydro-5H-tetrazole-5-thione (9CI) (CA INDEX NAME)

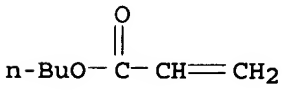
CM 1

CRN 58660-45-0
CMF C10 H10 N4 S



CM 2

CRN 141-32-2
CMF C7 H12 O2



IC ICM G03C001-02

CC **74-7** (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 3364-84-9 7341-98-2 15909-94-1 23249-95-8 38065-29-1
43023-31-0 52431-78-4 53918-03-9 58089-25-1 68994-94-5
91159-88-5 97916-68-2 110482-91-2 110608-95-2 110608-96-3
110608-97-4 110608-99-6 110633-01-7 110633-25-5
110802-22-7 110802-23-8 110802-24-9 110802-25-0 110802-26-1
110802-27-2 110802-28-3
RL: USES (Uses)
(diffusion-transfer photothermog. materials containing photosensitive silver halide and)

L30 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:19215 HCAPLUS
DOCUMENT NUMBER: 106:19215

TITLE: Triazolinethione-containing polymers
INVENTOR(S): Katritzky, Alan R.; Cato, Stephen J.; Rasmussen, Jerald K.; Krepski, Larry R.; Heilmann, Steven M.
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA
SOURCE: Eur. Pat. Appl., 20 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 197701	A2	19861015	EP 1986-302191	19860325
EP 197701	A3	19890503		
R: BE, CH, DE, FR, GB, IT, LI				
US 4624995	A	19861125	US 1985-721317	19850409
AU 8654683	A	19861016	AU 1986-54683	19860313
AU 579453	B2	19881124		
JP 61233021	A	19861017	JP 1986-79361	19860408
US 4740568	A	19880426	US 1986-891858	19860903

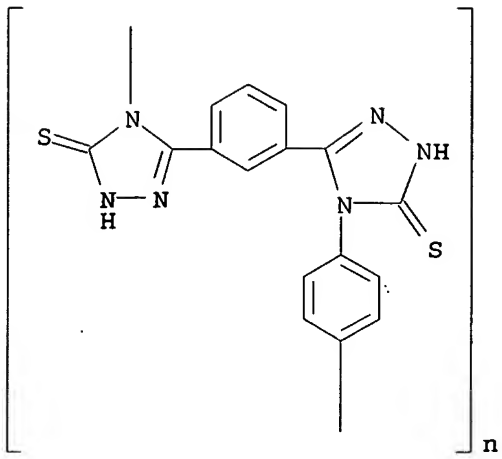
PRIORITY APPLN. INFO.: US 1985-721317 A 19850409

AB The title polymers are obtained by cyclodehydrating poly(acylthiosemicarbazides) at 60-150° in aqueous alkaline solution to form a polyanion of poly(triazolinethione). Acidification gives polymers which are uncrosslinked and useful as nonmigrating species in photosensitive materials. Thus, heating 4.0 g 1,6-bis(isothiocyanato)hexane and 3.88 g isophthalic dihydrazide in 100 mL DMSO at 100° for 4 h gave 7.42 g poly(acylthiosemicarbazide). Refluxing 5.0 g of this product in 1M Na2CO3 for 1 h, and acidifying to pH ≤2 gave 4.2 g poly(triazolinethione) having intrinsic viscosity 0.29 dL/g.

IT **106056-65-9P**
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture and cyclodehydration of)

RN 106056-65-9 HCAPLUS

CN Poly[(1,5-dihydro-5-thioxo-4H-1,2,4-triazole-4,3-diyl)-1,3-phenylene(1,5-dihydro-5-thioxo-4H-1,2,4-triazole-3,4-diyl)-1,4-phenylene] (9CI) (CA INDEX NAME)



IC ICM C08G073-08
CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): **74**
IT 25067-14-5P 106056-46-6P 106056-47-7P 106056-48-8P
106056-49-9P 106056-50-2P 106056-51-3P 106056-52-4P
106056-53-5P 106056-60-4P 106056-61-5P 106056-62-6P
106056-63-7P 106056-64-8P **106056-65-9P** 106056-66-0P
106056-67-1P 106056-68-2P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture and cyclodehydration of)

L30 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1979:195583 HCAPLUS
DOCUMENT NUMBER: 90:195583
TITLE: Photographic uses of poly(vinyl phenylmercaptotetrazoles)
INVENTOR(S): Grasshoff, J. Michael; Reid, Jerome L.
PATENT ASSIGNEE(S): Polaroid Corp., USA
SOURCE: U.S., 18 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4134768	A	19790116	US 1977-783552	19770401
PRIORITY APPLN. INFO.:			US 1976-718012 A2	19760226

GI For diagram(s), see printed CA Issue.
AB A polymeric substance having the general formula I [Z = an ethylenically unsatd. group which has been polymerized; Z1 = phenylene; ZZ1 = vinylphenyl, acrylamidophenyl, (2-acrylamido-2-methyl)propionamidophenyl, or p-formylphenyl acetal; Z2 = atoms

necessary to complete a 1,2,3,4-tetrazole ring; m = 0 or 1 when ZZ1 = vinylphenyl and m = 0 when ZZ1 = acrylamidophenyl, (2-acrylamido-2-methyl)propionamidophenyl, or p-formylphenyl acetal; n ≥100; M = an alkali metal or primary, secondary, tertiary, or quaternary ammonium] are used in conjunction with Ag halide photog. elements as interlayers to provide interimage control, as dispersants for dye image-forming materials, or as Ag scavengers. Thus, a multilayer, color, diffusion-transfer photog. film containing an interlayer of the K salt of poly[1-(p-vinylphenyl)-1H-5-mercaptotetrazole] (II) between the red-sensitive Ag(Br,I) emulsion layer and the layer containing a yellow dye-providing compound was exposed and processed in contact with an image-receiving element to give a print having better color isolation than that of a II-free control.

IT **58660-47-2 58660-48-3 58660-49-4**
RL: USES (Uses)
(photog. interlayers from, for color, diffusion-transfer films for improved interimage effect)

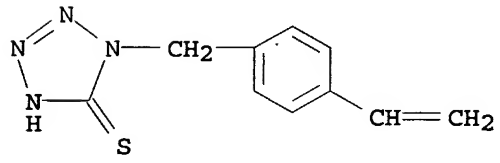
RN 58660-47-2 HCAPLUS
CN 5H-Tetrazole-5-thione, 1-[(4-ethenylphenyl)methyl]-1,2-dihydro-, homopolymer, potassium salt (9CI) (CA INDEX NAME)

CM 1

CRN 58660-46-1
CMF (C10 H10 N4 S)x
CCI PMS

CM 2

CRN 58660-45-0
CMF C10 H10 N4 S



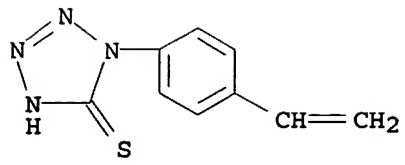
RN 58660-48-3 HCAPLUS
CN 5H-Tetrazole-5-thione, 1-(4-ethenylphenyl)-1,2-dihydro-, homopolymer, potassium salt (9CI) (CA INDEX NAME)

CM 1

CRN 58660-44-9
CMF (C9 H8 N4 S)x
CCI PMS

CM 2

CRN 55425-03-1
CMF C9 H8 N4 S



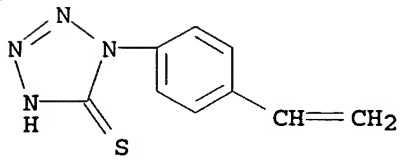
RN 58660-49-4 HCAPLUS
CN 5H-Tetrazole-5-thione, 1-(4-ethenylphenyl)-1,2-dihydro-, homopolymer, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 58660-44-9
CMF (C9 H8 N4 S)x
CCI PMS

CM 2

CRN 55425-03-1
CMF C9 H8 N4 S



IC G03C001-76
INCL 096073000
CC **74-2** (Radiation Chemistry, Photochemistry, and Photographic Processes)
IT **58660-47-2 58660-48-3 58660-49-4**
RL: USES (Uses)
(photog. interlayers from, for color, diffusion-transfer films for improved interimage effect)

L30 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1979:64406 HCAPLUS
DOCUMENT NUMBER: 90:64406
TITLE: Photographic uses of polyvinylphenylmercaptotetrazole-multivalent metal cation combinations
INVENTOR(S): Taylor, Lloyd D.
PATENT ASSIGNEE(S): Polaroid Corp., USA
SOURCE: U.S., 13 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 4102685 A 19780725 US 1976-718043 197608 26

PRIORITY APPLN. INFO.: US 1976-718043 A 197608 26

AB Diffusion-transfer photog. materials are described which consist of a support carrying ≥1 photosensitive Ag halide emulsion layer, a dye image-forming material, and a layer containing polymeric derivs. of tetrazole-5-thiols. The materials also contain a multivalent cation which diffuses to the layer containing the polymeric derivs. of tetrazole-5-thiols to increase the permeability of this layer to the dye image-forming material. Thus, a photosensitive element with interlayers containing poly[1-(p-vinylphenyl)-1,2,3,4-tetrazole-5-thiol] K salt and emulsion layers containing Ca(NO3)2 was exposed and developed to show good interimage control and a higher red, green, and blue Dmax than a control with interlayers containing a Bu acrylate-diacetone acrylamide-methacrylic acid-styrene polymer.

IT **58660-48-3**
RL: USES (Uses)
(color photog. films containing calcium nitrate and, for improved interimage control and increased maximum d.)

RN 58660-48-3 HCAPLUS

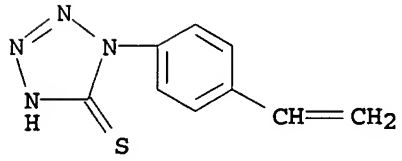
CN 5H-Tetrazole-5-thione, 1-(4-ethenylphenyl)-1,2-dihydro-, homopolymer, potassium salt (9CI) (CA INDEX NAME)

CM 1

CRN 58660-44-9
CMF (C9 H8 N4 S)x
CCI PMS

CM 2

CRN 55425-03-1
CMF C9 H8 N4 S



IC G03C001-40
INCL 096073000
CC **74-2** (Radiation Chemistry, Photochemistry, and Photographic Processes)
IT **58660-48-3**
RL: USES (Uses)
(color photog. films containing calcium nitrate and, for improved interimage control and increased maximum d.)

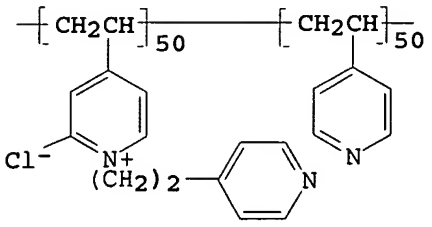
L30 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1978:180243 HCAPLUS
DOCUMENT NUMBER: 88:180243
TITLE: Color diffusion transfer material

INVENTOR(S): Sato, Yuzuru; Asano, Masao; Ishihara, Masao; Terada, Sadatugu
PATENT ASSIGNEE(S): Konishiroku Photo Industry Co., Ltd., Japan
SOURCE: Ger. Offen., 70 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2728557	A1	19771229	DE 1977-2728557	19770624
JP 53000125	A	19780105	JP 1976-74689	19760624
JP 59014739	B	19840405		
US 4154615	A	19790515	US 1977-808908	19770622
CA 1104859	A1	19810714	CA 1977-281619	19770628

PRIORITY APPLN. INFO.: JP 1976-74689 A 19760624

GI



I

AB A color photog. diffusion-transfer material is described that is composed of a light-sensitive Ag halide recording material and an image-receptor material containing as mordant a polymer from CH2:CR1ZNR2R3 or CH2:CR1ZR4 (R1 = H or Me; R2, R3 = alkyl, Ph, aralkyl, or together with the N atom form a 5- or 6-membered heterocyclic ring, R4 = a 5- or 6-membered heterocyclic ring) or a quaternary salt thereof. Thus, a color diffusion-transfer material was exposed and then contacted with an image-receptor sheet composed of a transparent poly(ethylene terephthalate) support coated with 100 g of an aqueous solution containing 3 wt % of a mordant having the structure I, 6 wt % poly(vinyl alc.), and polyethylene glycol nonylphenyl ether 0.1 g to give a 5 μ (dry) thick layer. The resulting color image had a yellow, magenta, and cyan Dmax of 1.46, 1,58, and 1.73, resp., vs. 1.18, 1.28, and 1.25, resp. for a control

containing poly(4-vinylpyridine).

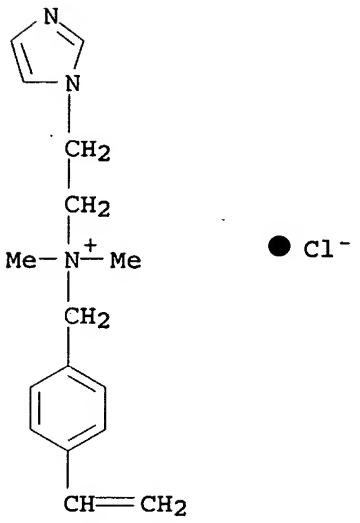
IT **66348-12-7**
RL: USES (Uses)
(mordant, for color photog. films)

RN 66348-12-7 HCAPLUS

CN 1H-Imidazole-1-ethanaminium, N-[(4-ethenylphenyl)methyl]-N,N-dimethyl-, chloride, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 66348-11-6
CMF C16 H22 N3 . Cl



IC G03C005-54

CC **74-2** (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 66348-05-8 66348-06-9 66348-08-1 66348-10-5 **66348-12-7** 66456-20-0 66456-22-2
RL: USES (Uses)
(mordant, for color photog. films)

L30 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1978:81815 HCAPLUS

DOCUMENT NUMBER: 88:81815

TITLE: Diffusion transfer elements comprising color-providing compounds capable of cleavage upon reaction with silver ions and silver ion barrier layers

INVENTOR(S): Cieciuch, Ronald F. W.; Luhowy, Roberta R.; Meneghini, Frank A.; Rogers, Howard G.

PATENT ASSIGNEE(S): Polaroid Corp., USA

SOURCE: U.S., 15 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4060417	A	19771129	US 1975-574296	197505 05
US 3719489	A	19730306	US 1971-155123	197106 21
CA 1055486	A2	19790529	CA 1976-254600	197606 11
PRIORITY APPLN. INFO.:			US 1971-155123 A3	197106 17
			US 1972-317168 A2	197212 21
			US 1974-465694 A2	197404 30
			CA 1972-145112 A3	197206 19

AB The use of a Ag ion scavenger layer between adjacent Ag halide emulsion layers enhances color separation in multicolor photog. images prepared by processes which utilize the imagewise distribution of Ag ions and/or soluble Ag complex made available during development to liberate a corresponding imagewise distribution of dye or dye intermediate from a color-providing compound Thus, a transparent poly(ethylene terephthalate) support was coated with a layer containing a cyan color-providing compound and gelatin, a red-sensitive gelatin-Ag(I,Br) emulsion layer, a layer containing the K salt of poly[1-(p-vinylphenyl)-1,2,3,4-tetrazole-5-thiol] (I) at .apprx.100 mg/ft2, a layer containing a yellow color-providing compound, Padding Yellow GL (filter dye), and gelatin, a blue-sensitive gelatin-Ag(Br,I) emulsion layer, and a gelatin layer. This material was then exposed to red and blue light and processed with an image-receiving element to give an integral neg.-pos. reflection print exhibiting better color isolation than that of a I-free control.

IT **58660-48-3**
RL: USES (Uses)
(color diffusion-transfer photog. films containing scavenger layer of, for improved color separation)

RN 58660-48-3 HCAPLUS

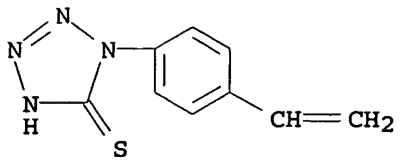
CN 5H-Tetrazole-5-thione, 1-(4-ethenylphenyl)-1,2-dihydro-, homopolymer, potassium salt (9CI) (CA INDEX NAME)

CM 1

CRN 58660-44-9
CMF (C9 H8 N4 S)x
CCI PMS

CM 2

CRN 55425-03-1
CMF C9 H8 N4 S



IC G03C007-00
INCL 096003000
CC **74-2** (Radiation Chemistry, Photochemistry, and Photographic Processes)
IT **58660-48-3**
RL: USES (Uses)
(color diffusion-transfer photog. films containing scavenger layer of, for improved color separation)

L30 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1976:122567 HCAPLUS
DOCUMENT NUMBER: 84:122567
TITLE: Novel polymeric derivatives of tetrazole-5-thiols and their metal and ammonium salts
INVENTOR(S): Grasshoff, J. Michael; Reid, Jerome L.
PATENT ASSIGNEE(S): Polaroid Corp., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3936401	A	19760203	US 1974-520983	19741105
PRIORITY APPLN. INFO.:			US 1974-429900 A2	19740102

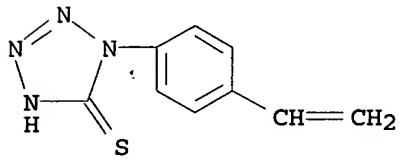
GI For diagram(s), see printed CA Issue.
AB 1,2,3,4-Tetrazole-5-thiol derivs. of styrene are prepared and the corresponding polymers used as photog. gelatin thickeners. Thus, p-CH2:CHC6H4NCS [1520-20-3] was prepared (71%) from p-CH2:CHC6H4NH2 [1520-21-4] and thiocarbonyl chloride [463-71-8] and treated (32.2 g) with 14.3 g Na azide [26628-22-8] to give 70% 1-(4-vinylphenyl)-1,2,3,4-tetrazole-5-thiol (I, R = H) (II) [55425-03-1]. II was acetylated to give a mixture of I (R = Ac) [58660-50-7] and 1-(4-vinylphenyl)-4-acetyl-2-tetrazoline-5-thione [58660-51-8]. The mixture was heated with azobisisobutyronitrile to give the copolymer [**58660-52-9**] which was saponified, followed by acidification, to give II homopolymer [**58660-44-9**].

IT **58660-44-9P 58660-47-2P 58660-49-4P**
58660-52-9DP, 5H-Tetrazole-5-thione, 1-acetyl-4-(4-ethenylphenyl)-1,4-dihydro-, polymer with S-[1-(4-ethenylphenyl)-1H-tetrazol-5-yl] ethanethioate, hydrolyzed
RL: PREP (Preparation)
(preparation of)

RN 58660-44-9 HCAPLUS
CN 5H-Tetrazole-5-thione, 1-(4-ethenylphenyl)-1,2-dihydro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 55425-03-1
CMF C9 H8 N4 S



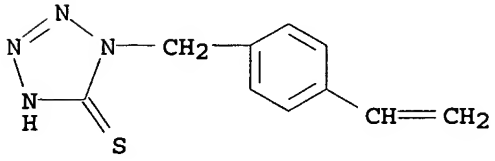
RN 58660-47-2 HCAPLUS
CN 5H-Tetrazole-5-thione, 1-[(4-ethenylphenyl)methyl]-1,2-dihydro-, homopolymer, potassium salt (9CI) (CA INDEX NAME)

CM 1

CRN 58660-46-1
CMF (C10 H10 N4 S)x
CCI PMS

CM 2

CRN 58660-45-0
CMF C10 H10 N4 S



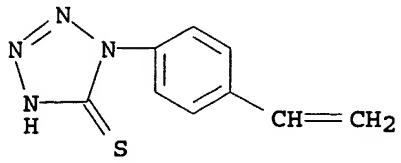
RN 58660-49-4 HCAPLUS
CN 5H-Tetrazole-5-thione, 1-(4-ethenylphenyl)-1,2-dihydro-, homopolymer, sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 58660-44-9
CMF (C9 H8 N4 S)x
CCI PMS

CM 2

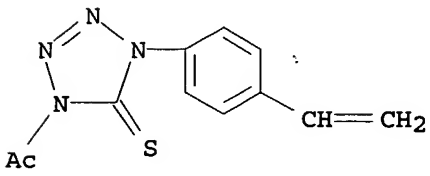
CRN 55425-03-1
CMF C9 H8 N4 S



RN 58660-52-9 HCAPLUS
CN Ethanethioic acid, S-[1-(4-ethenylphenyl)-1H-tetrazol-5-yl] ester, polymer with 1-acetyl-4-(4-ethenylphenyl)-1,4-dihydro-5H-tetrazole-5-thione (9CI) (CA INDEX NAME)

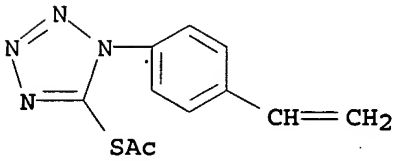
CM 1

CRN 58660-51-8
CMF C11 H10 N4 O S



CM 2

CRN 58660-50-7
CMF C11 H10 N4 O S



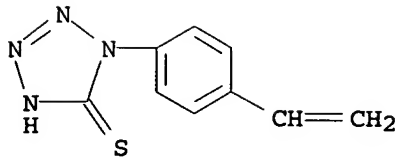
IT **58660-48-3**
RL: USES (Uses)
(thickening agents, for photographic emulsions)
RN 58660-48-3 HCAPLUS
CN 5H-Tetrazole-5-thione, 1-(4-ethenylphenyl)-1,2-dihydro-, homopolymer, potassium salt (9CI) (CA INDEX NAME)

CM 1

CRN 58660-44-9
CMF (C9 H8 N4 S)x
CCI PMS

CM 2

CRN 55425-03-1
CMF C9 H8 N4 S



IC C08L
INCL 260008000
CC 35-3 (Synthetic High Polymers)
Section cross-reference(s): **74**, 28, 25
IT **58660-44-9P** 58660-45-0P **58660-47-2P**
58660-49-4P 58660-50-7P 58660-51-8P **58660-52-9DP**
, 5H-Tetrazole-5-thione, 1-acetyl-4-(4-ethenylphenyl)-1,4-dihydro-, polymer with S-[1-(4-ethenylphenyl)-1H-tetrazol-5-yl] ethanethioate, hydrolyzed
RL: PREP (Preparation)
(preparation of)
IT **58660-48-3**
RL: USES (Uses)
(thickening agents, for photographic emulsions)

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